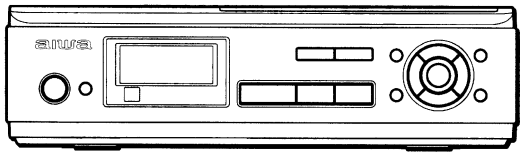
aiwa SERVICE

XD-DV170 AU(S)



SERVICE MANUAL

DVD PLAYER BASIC DVD/CD MECHANISM : DV32BF

SIMPLE-2

A part of contents is adequate.
Re-issuing is under request.

aiwa

S/M Code No. 09-00A-350-7N1

DATA

SPECIFICATIONS

Power supply	120 V AC, 60 Hz
Power consumption	12W
Weight	950 g (2.09 lbs.)
External dimensions	230 x 65 x 180 mm (w x h x d) ($9^1/_8$ x $2^5/_8$ x $7^1/_8$ in.)
Signal format	NTSC
Supported discs	DVD 12 cm (single-sided single-layer, single-sided double-layer, double-sided-double layer) 8 cm (single-sided single-layer, single-sided double-layer, double-sided-double layer) Compact discs (CD-DA, video CD) 12 cm and 8 cm discs
Video output	Video composit output 1 Vp-p (75 ohms, sync negative) RCA jacks S2 video output Y output: 1 Vp-p (75 ohms, sync negative) C output: 0.286 Vp-p
Audio output	DOWN MIXING AUDIO OUT connector 140 mV RMS (1 kHz, -20 dB) RCA jacks (L/R) Fiber optical connector (IEC 958)
Audio output characteristics	Frequency range: CD / VCD: 20 Hz to 20 kHz DVD: 4 Hz to 22 kHz (48 kHz sampling) 4 Hz to 44 kHz (96 kHz sampling) Wow and flutter: unmeasurable
Operating conditions	5˚C to 35˚C (41˚F to 95˚F)

Specifications are subject to change without notice.

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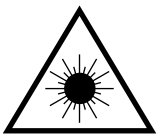
ACCESSORIES LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-AV6-901-010		IB,U (ESF) -DV170
2	8A-AV6-620-010		RC UNIT,RC-AVL01
⚠ 3	87-B30-407-010		AC ADAPTOR,AC-D1002UNC
4	87-050-052-010		CORD,PIN 3P Y/W/R
5	8Z-AV2-905-010		SH,COUPON DVDEXPRESS

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herin may result in hazardous radiation exposure.

ATTENTION
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

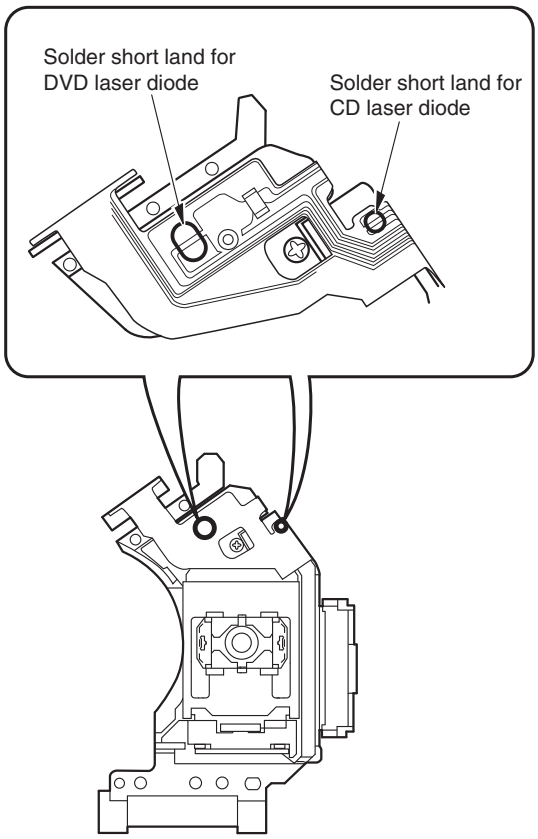
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the figures below.

(SF-HD3AV/HD3AVC)



ELECTRICAL MAIN PARTS LIST

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A21-032-080		C-IC,S-8520B28MC
	87-A20-925-040		C-IC,BA05FP
	87-A20-905-040		C-IC,BA033FP
	87-A21-764-040		C-IC,BA00ASFP
	87-A20-080-040		C-IC,TC74HC14AF
	87-017-027-040		C-IC,TC7W08F
	8A-ZA7-804-010		C-IC,LC87F72C8A
	87-A21-697-040		C-IC,TC7SHU04F
	8A-ZA7-803-010		C-IC,LC78660W
	8A-ZA7-802-040		C-IC,LC324265AT-25DV
	87-A21-309-040		C-IC,HD74LV74A
	8A-ZA7-800-010		C-IC,LA9702W-MPB
	87-017-917-080		C-IC,BU4066BCF
	8A-ZA7-801-040		C-IC,LA6556L-TE-L
	88-KT1-608-010		C-IC,LC75854W
	87-A21-245-010		IC,RPM6938-V4
	8A-ZA7-602-040		C-IC,HN58X2416FPI
	8Z-AV2-628-010		C-IC,HD6412350F20
	87-A20-185-040		C-IC,PST600DMT
	87-001-551-080		C-IC,TC7S08F
	8A-AV6-606-010		IC,P-ROMAAV-6
	8A-AV6-611-030		C-IC,W241024AT-15
	87-A20-957-040		C-IC,SN74LV245APW
	87-A21-755-040		C-IC,SN74LV541APW
	8Z-AV2-630-010		C-IC,L64021D
	87-A21-617-010		C-IC,HY57V161610DTC-8
	87-A20-689-080		C-IC,PCM1723
	87-A21-613-040		C-IC,SN74LV04APW
	87-017-585-080		C-IC,NJM4580E
	87-A21-103-040		C-IC,MM1454XFBE
	87-A21-362-040		C-IC,NJM2100M(TE2)
	87-A21-754-010		C-IC,MC44722AVFU
	87-A20-582-010		IC,GP1F31TJ
	87-017-453-080		C-IC,NJM2267M
	87-017-750-080		C-IC,MM1041XM
TRANSISTOR			
	87-A30-382-040		C-FET,FTS1002
	89-110-372-080		C-TR,2SA1037K(R)
	89-211-323-080		C-TR,2SB1132R
	89-333-265-040		C-TR,2SC3326A
	87-A30-516-040		C-FET,3LN01C-TB
	87-026-210-080		C-TR,DTC144EK
	89-341-165-080		C-TR,2SC4116GR
	89-115-864-080		C-TR,2SA1586Y
	87-026-342-080		C-TR,DTC144EU
	87-026-227-080		C-TR,DTA114EK
	89-342-132-080		C-TR,2SC4213B
	87-026-211-080		C-TR,DTA144EK
	89-324-123-080		C-TR,2SC2412KS
DIODE			
	87-017-779-080		C-DIODE,1SS355
	87-017-990-080		C-DIODE,U2FWJ44N
	87-A40-797-040		C-DIODE,SBE001
	87-001-166-080		C-DIODE,1SS301
	87-001-165-080		C-DIODE,1SS300
MAIN C.B			
C0002	87-016-669-080		C-CAP,S 0.1-25 K B
C0003	87-010-831-080		C-CAP,U 0.1-16 Z F
C0005	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0006	87-A12-416-080		C-CAP,E 100U-25 M 7.7L UD
C0007	87-016-669-080		C-CAP,S 0.1-25 K B
C0008	87-A12-416-080		C-CAP,E 100U-25 M 7.7L UD
C0009	87-016-669-080		C-CAP,S 0.1-25 K B
C0010	87-012-286-080		C-CAP,U 0.01-25 K B
C0012	87-A11-282-080		C-CAP,S 1-16 K B
C0015	87-A11-282-080		C-CAP,S 1-16 K B
C0016	87-010-831-080		C-CAP,U 0.1-16 Z F
C0017	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0018	87-010-831-080		C-CAP,U 0.1-16 Z F
C0019	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0020	87-A11-282-080		C-CAP,S 1-16 K B
C0021	87-010-831-080		C-CAP,U 0.1-16 Z F
C0022	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0023	87-010-831-080		C-CAP,U 0.1-16 Z F
C0024	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0026	87-010-831-080		C-CAP,U 0.1-16 Z F
C0027	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0028	87-010-831-080		C-CAP,U 0.1-16 Z F
C0029	87-A11-976-080		C-CAP,E 470-16 M 10.5L MV
C0100	87-012-274-080		C-CAP,U 1000P-50 K B
C0101	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0102	87-010-831-080		C-CAP,U 0.1-16 Z F
C0103	87-010-831-080		C-CAP,U 0.1-16 Z F
C0104	87-012-180-080		C-CAP,U 22P-50 J CH
C0105	87-012-180-080		C-CAP,U 22P-50 J CH
C0106	87-010-831-080		C-CAP,U 0.1-16 Z F
C0107	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0108	87-010-831-080		C-CAP,U 0.1-16 Z F
C0109	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0110	87-010-831-080		C-CAP,U 0.1-16 Z F
C0111	87-012-195-080		C-CAP,U 100P-50 J CH
C0112	87-010-831-080		C-CAP,U 0.1-16 Z F
C0113	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0114	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0115	87-010-831-080		C-CAP,U 0.1-16 Z F
C0116	87-012-172-080		C-CAP,U 10P-50 D CH
C0117	87-012-172-080		C-CAP,U 10P-50 D CH
C0118	87-012-172-080		C-CAP,U 10P-50 D CH
C0119	87-012-172-080		C-CAP,U 10P-50 D CH
C0120	87-012-172-080		C-CAP,U 10P-50 D CH
C0121	87-012-172-080		C-CAP,U 10P-50 D CH
C0122	87-012-172-080		C-CAP,U 10P-50 D CH
C0123	87-012-172-080		C-CAP,U 10P-50 D CH
C0124	87-012-172-080		C-CAP,U 10P-50 D CH
C0125	87-012-172-080		C-CAP,U 10P-50 D CH
C0126	87-012-286-080		C-CAP,U 0.01-25 K B
C0127	87-012-286-080		C-CAP,U 0.01-25 K B
C0128	87-012-286-080		C-CAP,U 0.01-25 K B
C0129	87-012-286-080		C-CAP,U 0.01-25 K B
C0130	87-012-286-080		C-CAP,U 0.01-25 K B
C0201	87-010-831-080		C-CAP,U 0.1-16 Z F
C0202	87-A11-031-080		C-CAP,E 100-16 M WX
C0203	87-010-831-080		C-CAP,U 0.1-16 Z F
C0205	87-010-831-080		C-CAP,U 0.1-16 Z F
C0206	87-A11-031-080		C-CAP,E 100-16 M WX
C0208	87-016-430-080		C-CAP,E 100-6.3 M 5.5L WX
C0209	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0211	87-010-831-080		C-CAP,U 0.1-16 Z F
C0217	87-010-831-080		C-CAP,U 0.1-16 Z F
C0218	87-010-831-080		C-CAP,U 0.1-16 Z F
C0219	87-A12-344-080		C-CAP,E 100-6.3 VC PX
C0220	87-012-274-080		C-CAP,U 1000P-50 K B
C0221	87-012-274-080		C-CAP,U 1000P-50 K B
C0222	87-010-831-080		C-CAP,U 0.1-16 Z F
C0224	87-012-277-080		C-CAP,U 1800P-50 K B GRM
C0225	87-012-274-080		C-CAP,U 1000P-50 K B
C0226	87-012-274-080		C-CAP,U 1000P-50 K B
C0227	87-012-274-080		C-CAP,U 1000P-50 K B
C0228	87-012-274-080		C-CAP,U 1000P-50 K B
C0229	87-012-274-080		C-CAP,U 1000P-50 K B
C0231	87-012-274-080		C-CAP,U 1000P-50 K B
C0232	87-012-274-080		C-CAP,U 1000P-50 K B
C0233	87-010-831-080		C-CAP,U 0.1-16 Z F

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C0234	87-010-831-080		C-CAP,U 0.1-16 Z F
C0235	87-012-174-080		C-CAP,U 12P-50 J CH
C0236	87-012-174-080		C-CAP,U 12P-50 J CH
C0237	87-010-831-080		C-CAP,U 0.1-16 Z F
C0238	87-010-829-080		C-CAP,U 0.047-16 Z F
C0239	87-010-829-080		C-CAP,U 0.047-16 Z F
C0240	87-010-831-080		C-CAP,U 0.1-16 Z F
C0241	87-010-831-080		C-CAP,U 0.1-16 Z F
C0242	87-012-286-080		C-CAP,U 0.01-25 K B
C0243	87-012-197-080		C-CAP,U 150P-50 J CH
C0244	87-010-831-080		C-CAP,U 0.1-16 Z F
C0245	87-010-831-080		C-CAP,U 0.1-16 Z F
C0246	87-010-831-080		C-CAP,U 0.1-16 Z F
C0247	87-010-831-080		C-CAP,U 0.1-16 Z F
C0248	87-010-831-080		C-CAP,U 0.1-16 Z F
C0249	87-010-831-080		C-CAP,U 0.1-16 Z F
C0250	87-010-831-080		C-CAP,U 0.1-16 Z F
C0251	87-010-831-080		C-CAP,U 0.1-16 Z F
C0252	87-010-831-080		C-CAP,U 0.1-16 Z F
C0253	87-010-831-080		C-CAP,U 0.1-16 Z F
C0254	87-010-831-080		C-CAP,U 0.1-16 Z F
C0255	87-010-831-080		C-CAP,U 0.1-16 Z F
C0256	87-012-282-080		C-CAP,U 4700P-50 K B
C0257	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0259	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0260	87-012-286-080		C-CAP,U 0.01-25 K B
C0261	87-012-286-080		C-CAP,U 0.01-25 K B
C0300	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0301	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0302	87-010-831-080		C-CAP,U 0.1-16 Z F
C0303	87-010-831-080		C-CAP,U 0.1-16 Z F
C0304	87-012-274-080		C-CAP,U 1000P-50 K B
C0305	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0307	87-012-274-080		C-CAP,U 1000P-50 K B
C0308	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0311	87-010-831-080		C-CAP,U 0.1-16 Z F
C0312	87-012-271-080		C-CAP,U 560P-50 K B
C0313	87-012-271-080		C-CAP,U 560P-50 K B
C0314	87-012-271-080		C-CAP,U 560P-50 K B
C0315	87-012-271-080		C-CAP,U 560P-50 K B
C0316	87-012-271-080		C-CAP,U 560P-50 K B
C0317	87-012-282-080		C-CAP,U 4700P-50 K B
C0318	87-012-271-080		C-CAP,U 560P-50 K B
C0319	87-012-196-080		C-CAP,U 120P-50 J CH
C0320	87-A11-031-080		C-CAP,E 100-16 M WX
C0321	87-010-831-080		C-CAP,U 0.1-16 Z F
C0322	87-012-196-080		C-CAP,U 120P-50 J CH
C0323	87-010-831-080		C-CAP,U 0.1-16 Z F
C0324	87-012-197-080		C-CAP,U 150P-50 J CH
C0330	87-012-184-080		C-CAP,U 33P-50 J CH
C0332	87-012-197-080		C-CAP,U 150P-50 J CH
C0333	87-012-184-080		C-CAP,U 33P-50 J CH
C0334	87-012-191-080		C-CAP,U 68P-50 J CH
C0335	87-012-199-080		C-CAP,U 220P-50 J CH
C0336	87-012-197-080		C-CAP,U 150P-50 J CH
C0337	87-012-188-080		C-CAP,U 47P-50 J CH
C0338	87-012-174-080		C-CAP,U 12P-50 J CH
C0339	87-012-195-080		C-CAP,U 100P-50 J CH
C0340	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0341	87-012-193-080		C-CAP,U 82P-50 J CH
C0342	87-012-180-080		C-CAP,U 22P-50 J CH
C0343	87-012-270-080		C-CAP,U 470P-50 K B
C0344	87-012-195-080		C-CAP,U 100P-50 J CH
C0345	87-012-197-080		C-CAP,U 150P-50 J CH
C0346	87-012-196-080		C-CAP,U 120P-50 J CH
C0347	87-012-165-080		C-CAP,U 3P-50 C CH
C0348	87-010-831-080		C-CAP,U 0.1-16 Z F
C0349	87-010-843-080		C-CAP,E 1-50 M 5.5L MV
C0350	87-010-831-080		C-CAP,U 0.1-16 Z F
C0351	87-010-831-080		C-CAP,U 0.1-16 Z F
C0352	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0353	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0354	87-012-164-080		C-CAP,U 2P-50 C CH
C0355	87-A11-031-080		C-CAP,E 100-16 M WX
C0356	87-012-176-080		C-CAP,U 15P-50 J CH
C0357	87-010-831-080		C-CAP,U 0.1-16 Z F
C0358	87-012-274-080		C-CAP,U 1000P-50 K B
C0359	87-012-274-080		C-CAP,U 1000P-50 K B
C0400	87-010-831-080		C-CAP,U 0.1-16 Z F
C0401	87-016-427-080		C-CAP,E 47-6.3 M 5.5L WX
C0402	87-010-831-080		C-CAP,U 0.1-16 Z F
C0403	87-010-831-080		C-CAP,U 0.1-16 Z F
C0404	87-A11-968-080		C-CAP,E 220-16 M UR
C0405	87-010-831-080		C-CAP,U 0.1-16 Z F
C0406	87-010-831-080		C-CAP,U 0.1-16 Z F
C0407	87-012-199-080		C-CAP,U 220P-50 J CH
C0408	87-012-199-080		C-CAP,U 220P-50 J CH
C0409	87-012-199-080		C-CAP,U 220P-50 J CH
C0410	87-012-199-080		C-CAP,U 220P-50 J CH
C0424	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0425	87-010-831-080		C-CAP,U 0.1-16 Z F
C0426	87-010-831-080		C-CAP,U 0.1-16 Z F
C0427	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0601	87-012-286-080		C-CAP,U 0.01-25 K B
C0602	87-012-286-080		C-CAP,U 0.01-25 K B
C0604	87-012-286-080		C-CAP,U 0.01-25 K B
C0605	87-012-286-080		C-CAP,U 0.01-25 K B
C0608	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0609	87-012-286-080		C-CAP,U 0.01-25 K B
C0612	87-012-286-080		C-CAP,U 0.01-25 K B
C0613	87-012-286-080		C-CAP,U 0.01-25 K B
C0614	87-012-172-080		C-CAP,U 10P-50 D CH
C0615	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0617	87-012-172-080		C-CAP,U 10P-50 D CH
C0619	87-012-286-080		C-CAP,U 0.01-25 K B
C0620	87-012-286-080		C-CAP,U 0.01-25 K B
C0623	87-012-286-080		C-CAP,U 0.01-25 K B
C0624	87-012-286-080		C-CAP,U 0.01-25 K B
C0625	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0626	87-012-286-080		C-CAP,U 0.01-25 K B
C0627	87-012-286-080		C-CAP,U 0.01-25 K B
C0628	87-012-286-080		C-CAP,U 0.01-25 K B
C0630	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0632	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0634	87-012-286-080		C-CAP,U 0.01-25 K B
C0639	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0640	87-012-286-080		C-CAP,U 0.01-25 K B
C0641	87-012-286-080		C-CAP,U 0.01-25 K B
C0642	87-012-286-080		C-CAP,U 0.01-25 K B
C0643	87-010-197-080		C-CAP,S 0.01-25 K B C2012
C0702	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0703	87-A11-031-080		C-CAP,E 100-16 M WX
C0704	87-012-286-080		C-CAP,U 0.01-25 K B
C0705	87-012-286-080		C-CAP,U 0.01-25 K B
C0706	87-012-286-080		C-CAP,U 0.01-25 K B
C0707	87-012-278-080		C-CAP,U 2200P-50 K B
C0708	87-012-286-080		C-CAP,U 0.01-25 K B
C0709	87-012-286-080		C-CAP,U 0.01-25 K B
C0710	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0711	87-012-286-080		C-CAP,U 0.01-25 K B
C0712	87-012-286-080		C-CAP,U 0.01-25 K B
C0713	87-012-286-080		C-CAP,U 0.01-25 K B
C0714	87-012-286-080		C-CAP,U 0.01-25 K B
C0715	87-012-286-080		C-CAP,U 0.01-25 K B
C0716	87-012-286-080		C-CAP,U 0.01-25 K B
C0717	87-012-286-080		C-CAP,U 0.01-25 K B
C0718	87-012-286-080		C-CAP,U 0.01-25 K B
C0719	87-012-286-080		C-CAP,U 0.01-25 K B
C0720	87-012-286-080		C-CAP,U 0.01-25 K B
C0721	87-012-286-080		C-CAP,U 0.01-25 K B

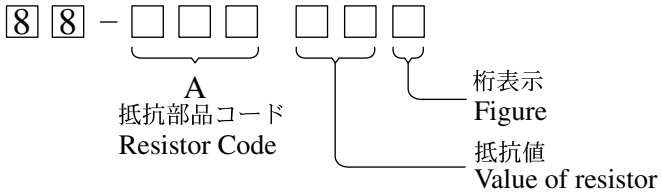
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C0722	87-012-286-080		C-CAP,U 0.01-25 K B
C0723	87-012-286-080		C-CAP,U 0.01-25 K B
C0724	87-012-286-080		C-CAP,U 0.01-25 K B
C0725	87-012-170-080		C-CAP,U 8P-50 D CH
C0726	87-012-196-080		C-CAP,U 120P-50 J CH
C0731	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0732	87-012-286-080		C-CAP,U 0.01-25 K B
C0733	87-012-196-080		C-CAP,U 120P-50 J CH
C0734	87-012-170-080		C-CAP,U 8P-50 D CH
C0735	87-012-286-080		C-CAP,U 0.01-25 K B
C0736	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0737	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0738	87-012-196-080		C-CAP,U 120P-50 J CH
C0741	87-010-831-080		C-CAP,U 0.1-16 Z F
C0744	87-010-831-080		C-CAP,U 0.1-16 Z F
C0745	87-010-831-080		C-CAP,U 0.1-16 Z F
C0759	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0760	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0771	87-012-278-080		C-CAP,U 2200P-50 K B
C0772	87-012-278-080		C-CAP,U 2200P-50 K B
C0773	87-012-279-080		C-CAP,U 2700P-50 K B GRM
C0774	87-012-279-080		C-CAP,U 2700P-50 K B GRM
C0775	87-012-267-080		C-CAP,U 270P-50 K B GRM
C0776	87-012-267-080		C-CAP,U 270P-50 K B GRM
C0777	87-010-458-080		C-CAP,E 2.2-50 M MV
C0778	87-010-458-080		C-CAP,E 2.2-50 M MV
C0779	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C0780	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C0781	87-012-186-080		C-CAP,U 39P-50 J CH
C0782	87-012-186-080		C-CAP,U 39P-50 J CH
C0783	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0784	87-010-831-080		C-CAP,U 0.1-16 Z F
C0785	87-010-831-080		C-CAP,U 0.1-16 Z F
C0786	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0787	87-010-831-080		C-CAP,U 0.1-16 Z F
C0788	87-010-831-080		C-CAP,U 0.1-16 Z F
C0789	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0790	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0791	87-012-195-080		C-CAP,U 100P-50 J CH
C0792	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0793	87-012-286-080		C-CAP,U 0.01-25 K B
C0794	87-012-286-080		C-CAP,U 0.01-25 K B
C0795	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C0800	87-012-286-080		C-CAP,U 0.01-25 K B
C0801	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0802	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0803	87-010-831-080		C-CAP,U 0.1-16 Z F
C0804	87-010-831-080		C-CAP,U 0.1-16 Z F
C0806	87-010-831-080		C-CAP,U 0.1-16 Z F
C0810	87-012-286-080		C-CAP,U 0.01-25 K B
C0811	87-016-428-080		C-CAP,E 47-16 M 5.5L WX
C0812	87-012-286-080		C-CAP,U 0.01-25 K B
C0817	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0818	87-012-286-080		C-CAP,U 0.01-25 K B
C0819	87-012-186-080		C-CAP,U 39P-50 J CH
C0820	87-012-182-080		C-CAP,U 27P-50 J CH
C0834	87-012-184-080		C-CAP,U 33P-50 J CH
C0835	87-012-174-080		C-CAP,U 12P-50 J CH
C0836	87-012-178-080		C-CAP,U 18P-50 J CH
C0837	87-012-184-080		C-CAP,U 33P-50 J CH
C0838	87-012-174-080		C-CAP,U 12P-50 J CH
C0839	87-012-178-080		C-CAP,U 18P-50 J CH
C0844	87-012-168-080		C-CAP,U 6P-50 D CH
C0950	87-012-286-080		C-CAP,U 0.01-25 K B
C0951	87-010-848-080		C-CAP,E 10-16 M 5.5L MV
C0952	87-010-846-080		C-CAP,E 4.7-35 M 5.5L MV
C0953	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C0954	87-A11-031-080		C-CAP,E 100-16 M WX
C0955	87-012-286-080		C-CAP,U 0.01-25 K B
C0956	87-010-846-080		C-CAP,E 4.7-35 M 5.5L MV
C0957	87-A11-974-080		C-CAP,E 22-16 M 5.5L MV
C0958	87-A11-031-080		C-CAP,E 100-16 M WX
C0959	87-012-286-080		C-CAP,U 0.01-25 K B
C0960	87-012-286-080		C-CAP,U 0.01-25 K B
C0961	87-010-831-080		C-CAP,U 0.1-16 Z F
CN0100	87-A61-476-080		C-CONN,10P V WHT BM10B-SRSS-TB
CN0300	87-A61-459-080		C-CONN,33P H XF2H-3315-1
CN0402	87-A61-337-080		C-CONN,9P V WHT PH-SM3-TB
CN0600	87-009-984-080		C-CONN,2P V WHT ZR
CN0601	87-A60-777-010		CONN,14P B TMC-D(P)
CNA0402	8A-ZGD-607-010		CONN ASSY,9P PH
FB0001	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0002	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0003	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0005	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0006	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0007	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0008	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0201	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
FB0731	87-A91-480-080		C-F-BEAD, BK1608 HS121
FB0737	87-A91-480-080		C-F-BEAD, BK1608 HS121
FB0739	87-A91-480-080		C-F-BEAD, BK1608 HS121
FFC0001	8A-AV6-607-010		FLEX-PWB,33P RF
J0001	87-A61-165-010		JACK,DC 4.75 BLK 10.5
J0606	87-A61-145-010		C-SOCKET,IC 2-44P IC179-44600
J0950	87-A60-127-010		JACK,Y/CYKF51-5503
J0951	87-A61-473-010		JACK,PIN 3P WHT YKC21-5816
L0003	87-A50-545-080		C-COIL,47UH-D124C
L0004	84-HD1-620-080		C-COIL, 22UH M D75C
L0005	87-A50-395-080		C-COIL,100UHD73C-636CY
L0006	87-A50-395-080		C-COIL,100UHD73C-636CY
L0100	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0201	87-A50-395-080		C-COIL,100UHD73C-636CY
L0202	87-A91-720-080		C-F-BEAD, FBMJ3216HS800-T
L0203	87-A50-668-080		C-COIL, 2.2UH K FLC32
L0300	87-A50-395-080		C-COIL,100UHD73C-636CY
L0301	87-005-811-080		C-COIL, 10UH FLC32
L0302	87-005-811-080		C-COIL, 10UH FLC32
L0400	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0600	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0601	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0602	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0603	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0700	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0701	87-A50-667-080		C-COIL, 1.0UH K FLC32
L0702	87-A50-668-080		C-COIL, 2.2UH K FLC32
L0704	87-A50-668-080		C-COIL, 2.2UH K FLC32
L0705	87-005-815-080		C-COIL, 22UH J FLC32
L0800	87-A50-668-080		C-COIL, 2.2UH K FLC32
L0801	87-005-815-080		C-COIL, 22UH J FLC32
L0802	87-005-811-080		C-COIL, 10UH FLC32
L0803	87-005-817-080		C-COIL, 33UH J FLC32
L0805	87-005-816-080		C-COIL, 27UH J FLC32
L0806	87-005-816-080		C-COIL, 27UH J FLC32
L0810	87-005-816-080		C-COIL, 27UH J FLC32
L0811	87-005-816-080		C-COIL, 27UH J FLC32
L0950	87-005-815-080		C-COIL, 22UH J FLC32
R0005	87-022-247-080		C-RES,U 22K-1/16W F
R0006	87-022-284-080		C-RES,U 68K-1/16W F
R0012	87-022-284-080		C-RES,U 68K-1/16W F
R0013	87-022-285-080		C-RES,U 82K-1/16W F
R0020	87-022-241-080		C-RES,U 12K-1/16W F
R0021	87-022-223-080		C-RES,U 2.2K-1/16W F
T0951	87-A91-993-080		C-BALUN,4BLH-023
T0952	87-A91-993-080		C-BALUN,4BLH-023
T0953	87-A91-993-080		C-BALUN,4BLH-023
T0954	87-A91-993-080		C-BALUN,4BLH-023
T0955	87-A91-993-080		C-BALUN,4BLH-023
X0100	87-A70-284-080		C-VIB,XTAL 10MHZ HC-49/U03C
X0200	87-A70-283-080		C-VIB,XTAL 16.9344MHZ HC-49/U0

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
X0600	87-A70-194-080		C-VIB,XTAL 20MHZ HC-49/U03C
X0700	87-A70-195-080		C-VIB,XTAL 27MHZ HC-49/U03C
FRONT C.B			
C0500	87-010-831-080		C-CAP,U 0.1-16 Z F
C0501	87-010-831-080		C-CAP,U 0.1-16 Z F
C0502	87-012-272-080		C-CAP,U 680P-50 K B GRM
C0503	87-010-831-080		C-CAP,U 0.1-16 Z F
C0504	87-010-498-040		CAP,E 10-16 M 5L SRE
C0505	87-010-831-080		C-CAP,U 0.1-16 Z F
C0506	87-010-498-040		CAP,E 10-16 M 5L SRE
CN0500	87-A60-769-010		CONN,14P B TMC-D(X)
L0500	87-005-184-080		COIL,1UH K EL0606
LCD0500	8A-AV6-608-010		LCD,AAV-6
LED0500	87-A40-943-010		LED,SEL6810ALF62 ORG
LED0501	87-A40-943-010		LED,SEL6810ALF62 ORG
S0500	87-A90-164-080		SW,TACT SKQNAB(N)
S0501	87-A90-164-080		SW,TACT SKQNAB(N)
S0502	87-A90-164-080		SW,TACT SKQNAB(N)

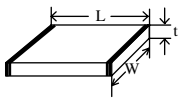
REF. NO	PART NO.	KANRI NO.	DESCRIPTION
S0503	87-A90-164-080		SW,TACT SKQNAB(N)
S0504	87-A90-164-080		SW,TACT SKQNAB(N)
S0505	87-A90-164-080		SW,TACT SKQNAB(N)
S0506	87-A90-164-080		SW,TACT SKQNAB(N)
S0507	87-A90-164-080		SW,TACT SKQNAB(N)
S0508	87-A90-164-080		SW,TACT SKQNAB(N)
S0509	87-A90-164-080		SW,TACT SKQNAB(N)
S0510	87-A90-164-080		SW,TACT SKQNAB(N)
S0511	87-A90-164-080		SW,TACT SKQNAB(N)
S0512	87-A90-164-080		SW,TACT SKQNAB(N)
S0513	87-A90-164-080		SW,TACT SKQNAB(N)
S0514	87-A90-164-080		SW,TACT SKQNAB(N)
S0515	87-A90-164-080		SW,TACT SKQNAB(N)

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

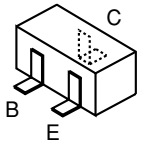
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



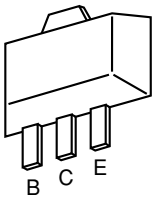
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm) 外形／Form	L	W	t	抵抗コード : A Resistor Code : A
1/16W	1005	± 5%	CJ		1.0	0.5	0.35	104
1/16W	1608	± 5%	CJ		1.6	0.8	0.45	108
1/10W	2125	± 5%	CJ		2	1.25	0.45	118
1/8W	3216	± 5%	CJ		3.2	1.6	0.55	128

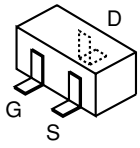
TRANSISTOR ILLUSTRATION



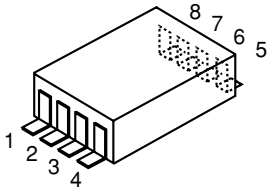
2SA1037
2SA1586
2SC2412
2SC3326
2SC4116
2SC4213
DTA114EK
DTA144EK
DTC144EK
DTC144EU



2SB1132

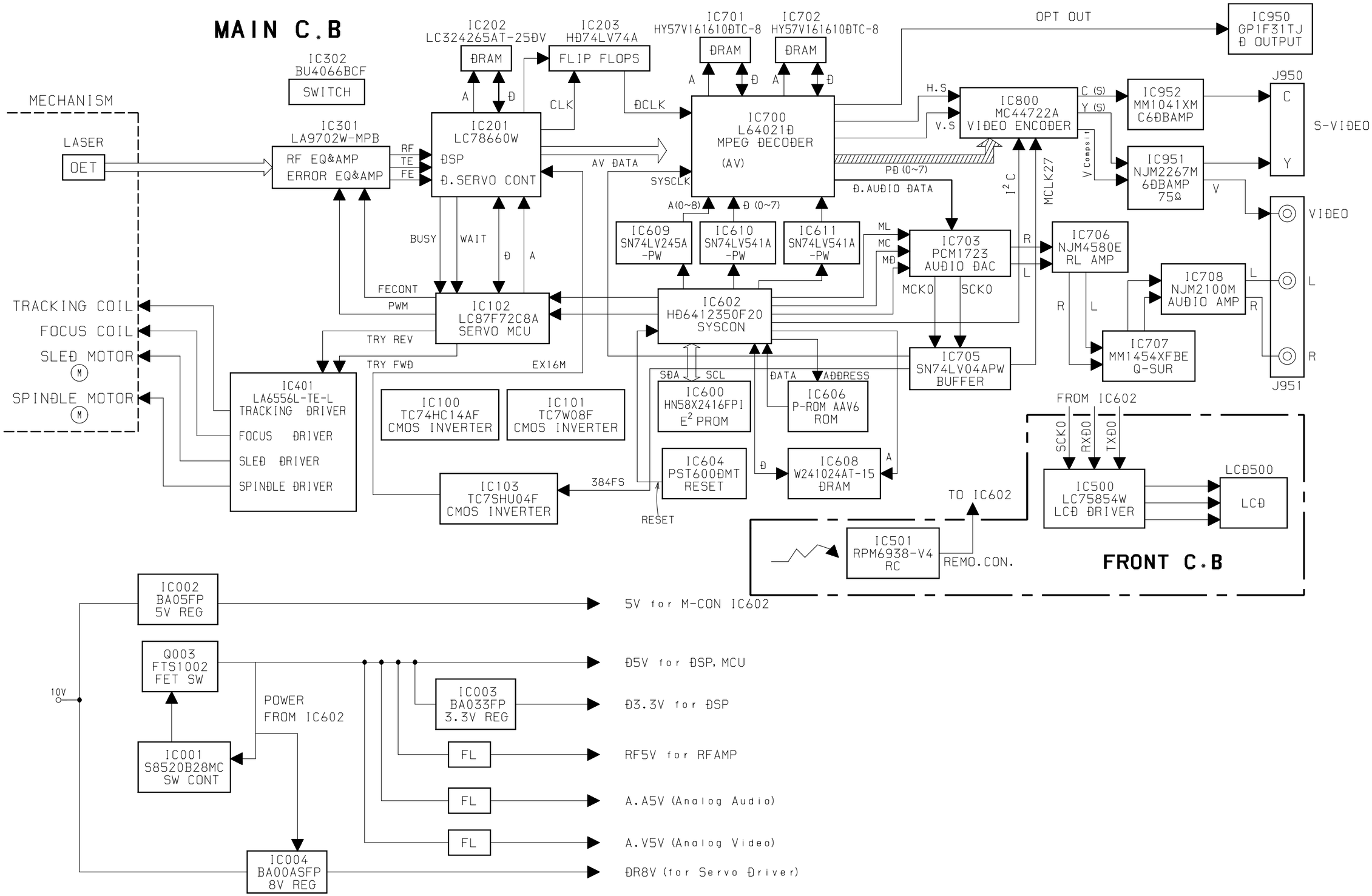


3LN01C



FTS1002

BLOCK DIAGRAM



MAIN C.B 1/9 (POWER SECTION)

Đ005 1SS355 R015 33
IC002 BA05FP 5V REG
C015 1 2125
C016 0.1
C017 470/16
GNĐ
FB001 FBMJ3216HS800
TP015
TP016
MICON VCC 1A
Đ5VGNĐ 2A

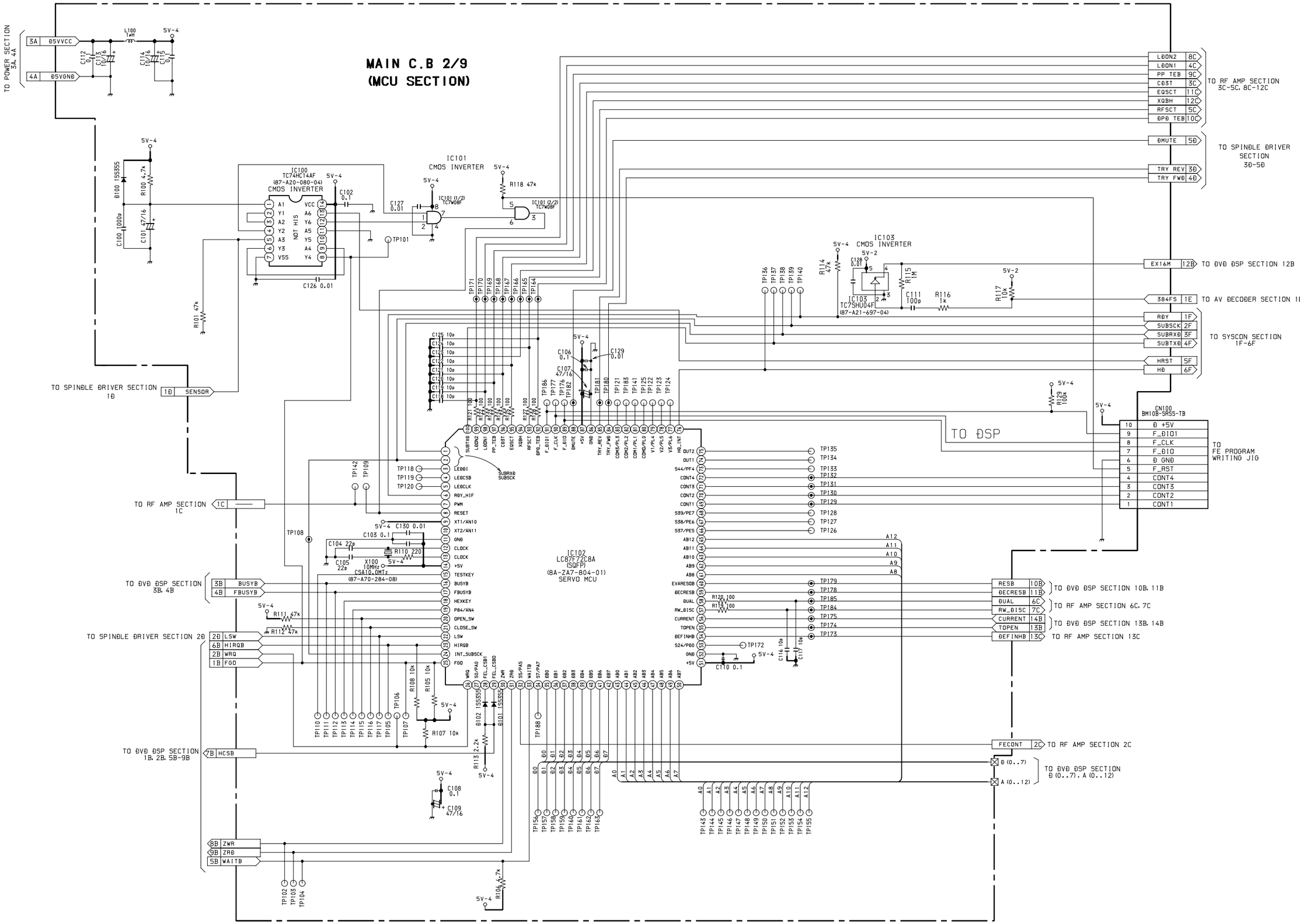
Q003 FTS1002 FET SW
C006 100/25 UB
C007 0.1 25V BK 2125
L003 47㎌ Đ124C
TP008
Đ004 SBE001
C008 100/25 UB
C009 0.1 25V BK 2125
R012 68k F
C010 0.01
R013 82k F
TP009
IC001 S-8520B28MC SW CONT
ON/OFF VIN GNĐ VOUT EXT
TP007
GNĐ

L004 22㎌ Đ75C
TP010
FB002 FBMJ3216HS800
TP017
C018 0.1
C019 470/16
TP018
Đ5VVCC 3A
Đ5VGNĐ 4A
Đ002 1SS355 R028 33
IC003 BA033FP 3.3V REG
C020 1 2125
C021 0.1
C022 470/16
FB003 FBMJ3216HS800
TP019
TP020
Đ3R3V 5A
Đ5VGNĐ 6A
L005 100㎌ Đ73C
FB008 FBMJ3216HS800
TP021
C023 0.1
C024 470/16
TP022
RFVCC 7A
RFGNĐ 8A
L006 100㎌ Đ73C
FB005 FBMJ3216HS800
TP023
C026 0.1
C027 470/16
TP024
AA5V VCC 9A
AA5V GNĐ 10A
FB006 FBMJ3216HS800
TP025
TP026
AV5V VCC 11A
AV5V GNĐ 12A
FB007 FBMJ3216HS800
TP027
TP028
ĐR8V VCC 13A
ĐR8V GNĐ 14A
TP029
R019 10k
POWER ON 15A
V ĐET 16A

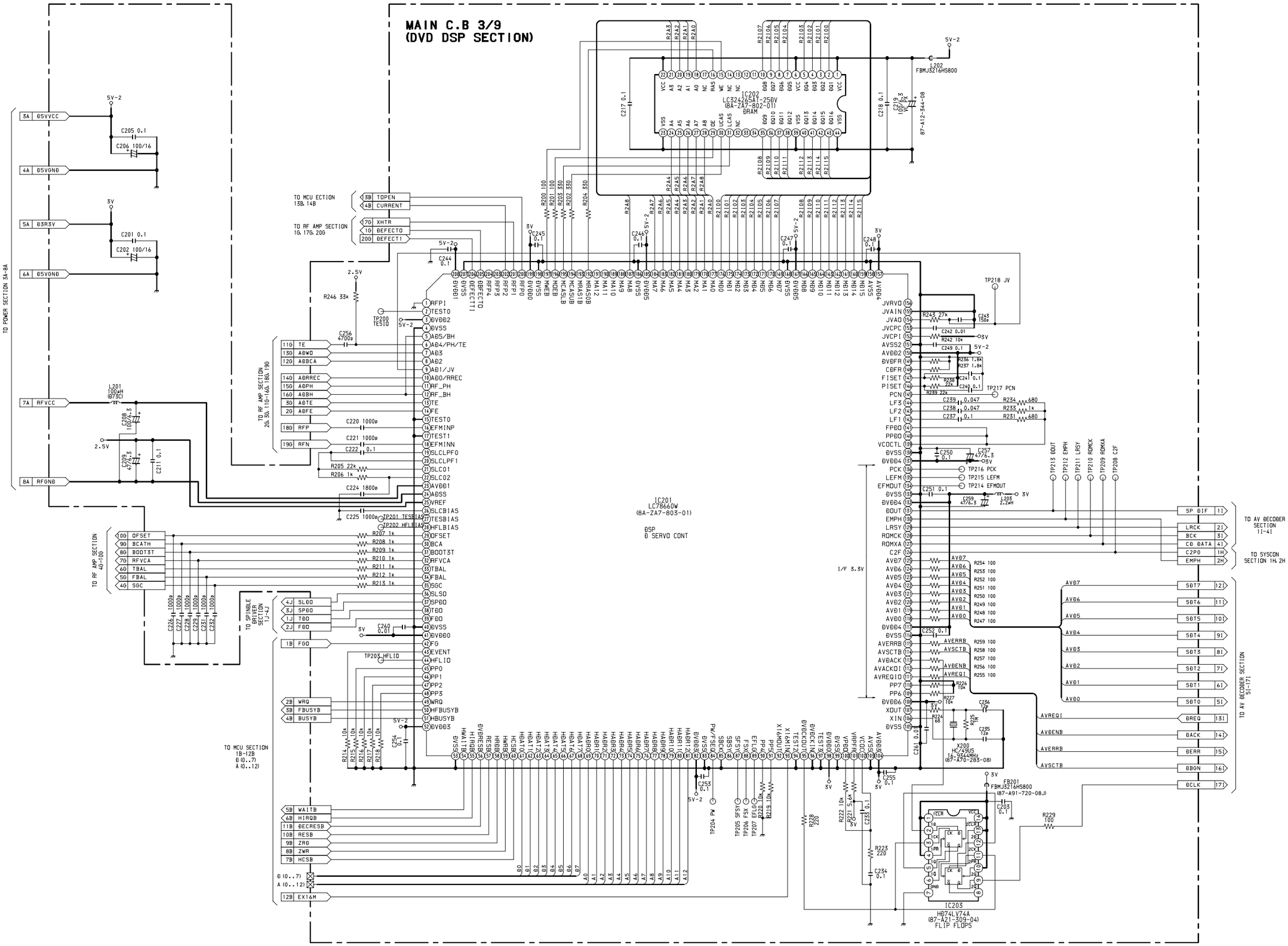
Đ006 1SS355 R017 33
IC004 BA00ASFP 8V REG
C012 1 2125
R020 12k F
C028 0.1
C029 470/16
R021 2.2k F
TP014
TP013
GNĐ

TP006
TP001
Đ003 U2FWJ44N
TP004
C002 0.1 25V BK 2125
C005 470/16
J001 87-A61-165-01
DC IN
TP002
TP003
TP005
R006 68k F
R005 22k F
C003 0.1
GNĐ
FG

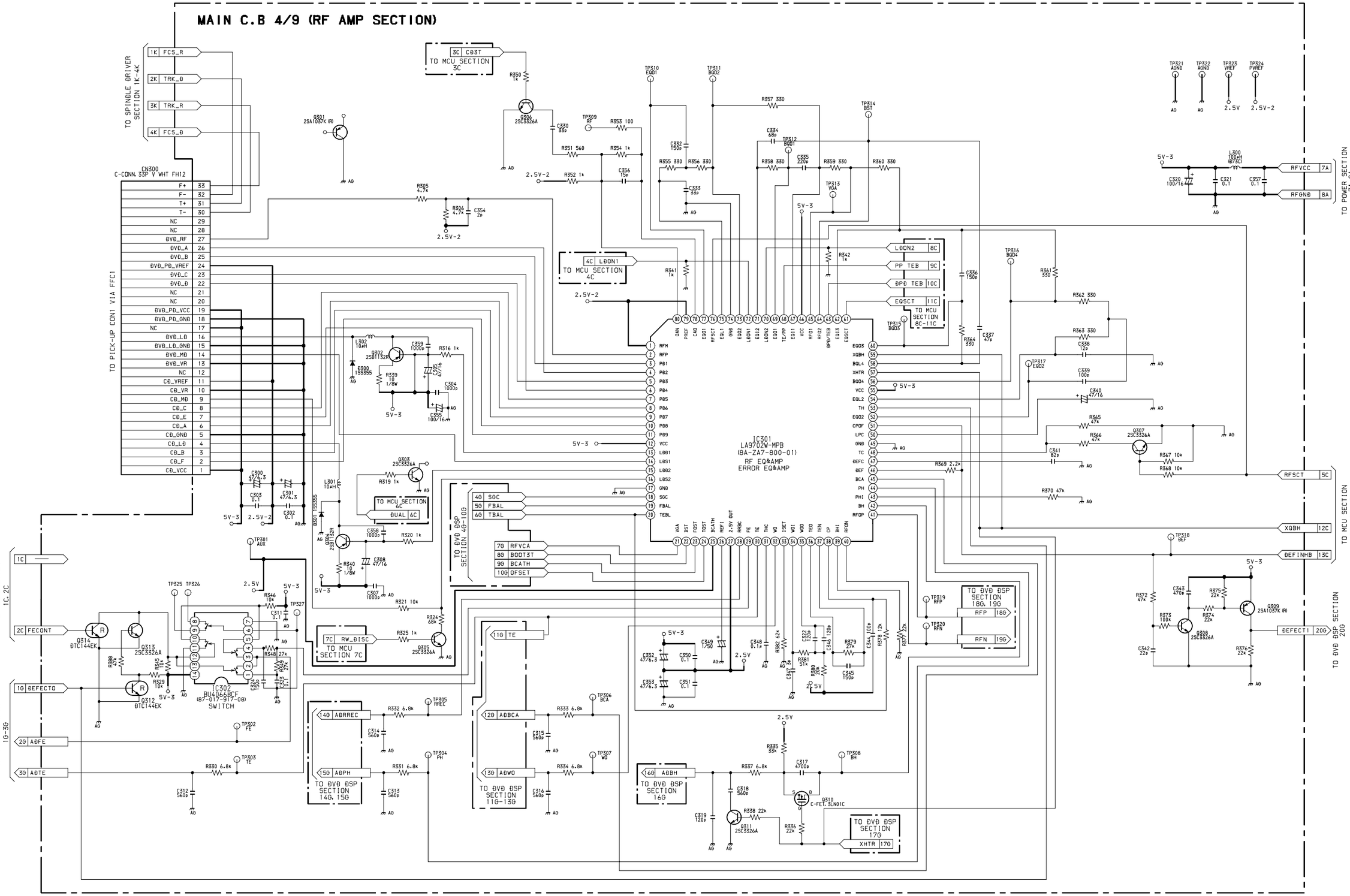
TO MCU SECTION 3A, 4A / TO BVĐ ĐSP SECTION 3A-8A / TO RF AMP SECTION 7A, 8A /
TO SPINĐLE ĐRIVER SECTION 3A, 13A, 14A / TO SYSCON SECTION 1A-4A, 15A, 16A / TO AV ĐECOĐER SECTION 3A, 4A, 9A, 10A /
TO VIĐEO ENCOĐER SECTION 11A, 12A / TO VIĐEO SECTION 3A, 4A, 12A

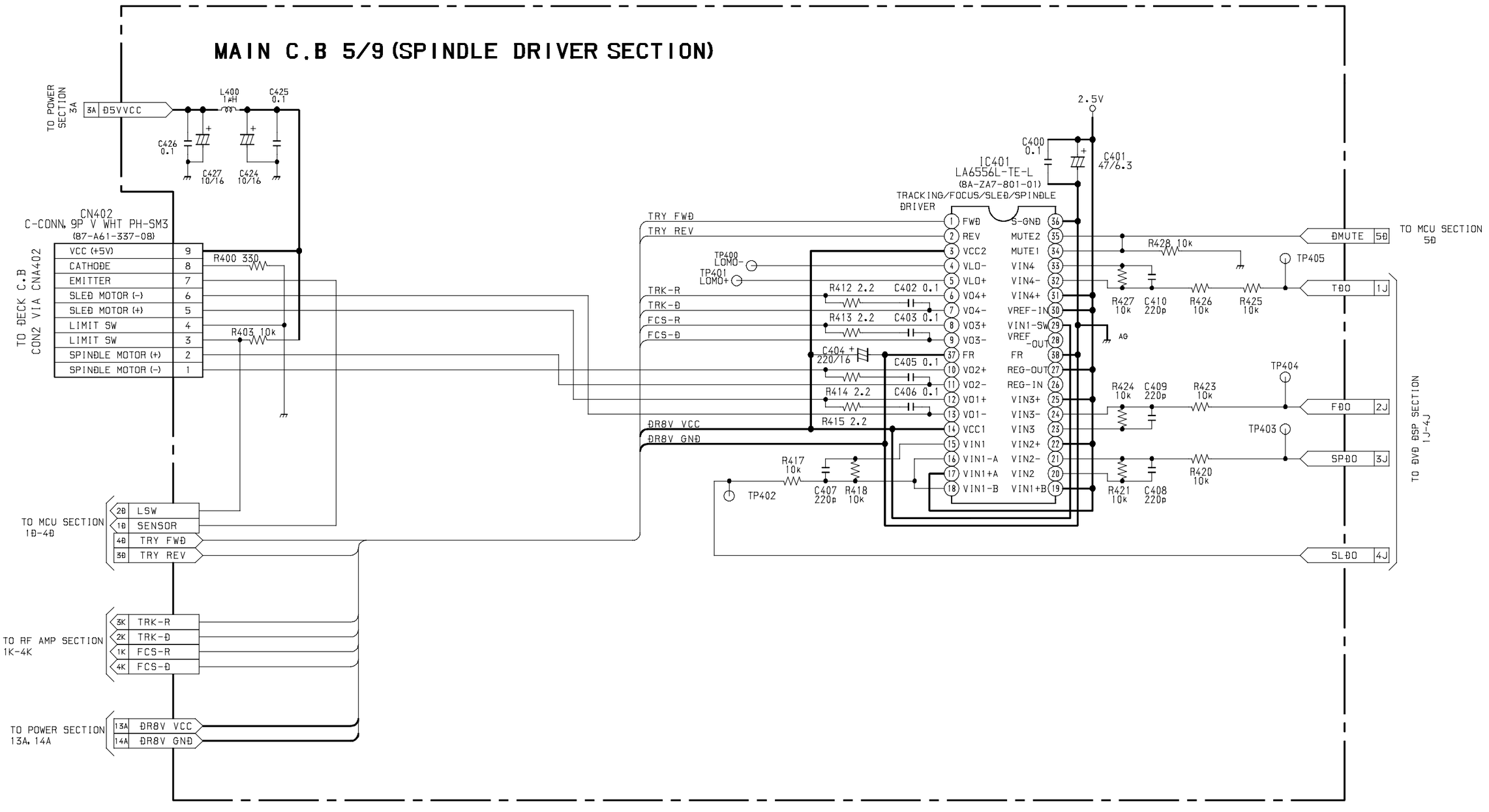

MAIN C.B 2/9
(MCU SECTION)
IC102
LC87F72C8A
(SQFP)
(8A-ZA7-804-01)
SERVO MCU
IC100
TC74HC14AF
(87-A20-080-04)
CMOS INVERTER
IC101
CMOS INVERTER
IC103
CMOS INVERTER
IC103
TC7SHU04F
(87-A21-697-04)
CN100
BM10B-SRSS-TB
TO RF AMP SECTION
3C-5C, 8C-12C
TO SPINDLE DRIVER
SECTION
3D-5D
TO DVD DSP SECTION 12B
TO AV DECODER SECTION 1E
TO SYSCON SECTION
1F-6F
TO DSP
TO
FE PROGRAM
WRITING JIG
TO SPINDLE DRIVER SECTION
1D
TO RF AMP SECTION
1C
TO DVD DSP SECTION
3B, 4B
TO SPINDLE DRIVER SECTION 2D
TO DVD DSP SECTION
1B, 2B, 5B-9B
TO DVD DSP SECTION 10B, 11B
TO RF AMP SECTION 6C, 7C
TO DVD DSP SECTION 13B, 14B
TO RF AMP SECTION 13C
TO RF AMP SECTION 2C
TO DVD DSP SECTION
D (0..7), A (0..12)

SCHEMATIC DIAGRAM - 3 (MAIN C.B -3/9)

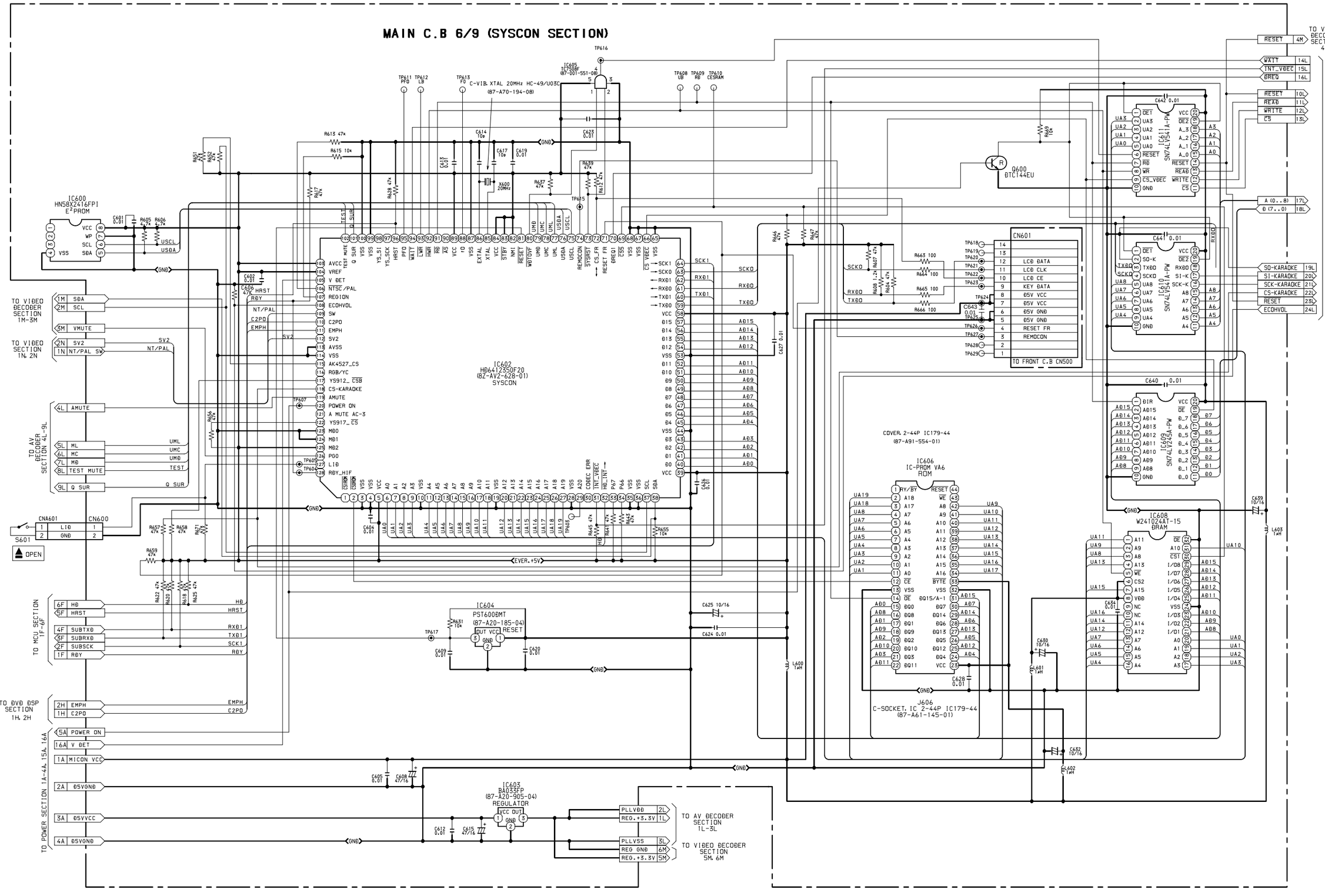


SCHEMATIC DIAGRAM - 4 (MAIN C.B -4/9)

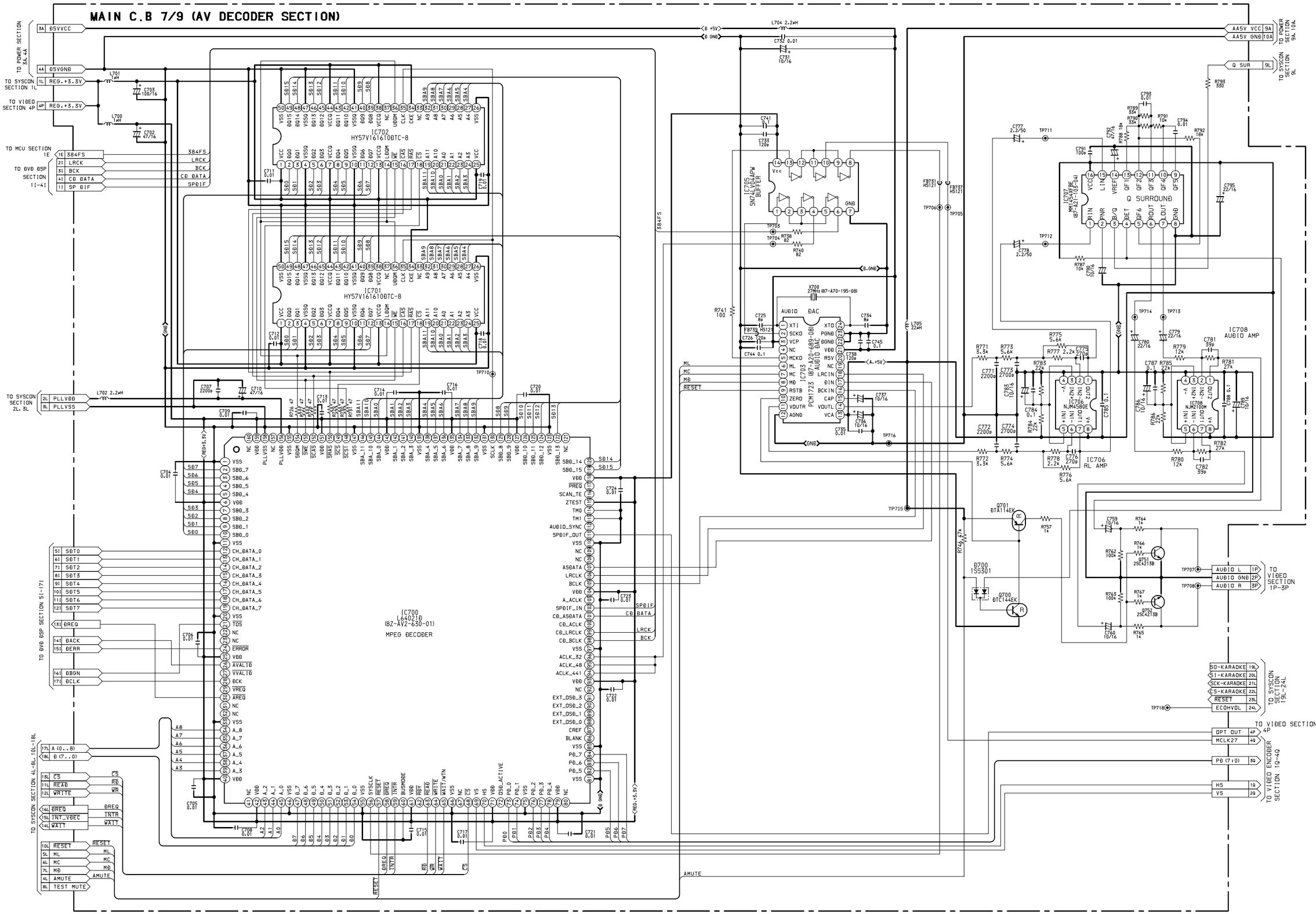



MAIN C.B 5/9 (SPINDLE DRIVER SECTION)
TO POWER SECTION 3A
3A ĐSVVCC
L400 1µH
C425 0.1
C426 0.1
C427 10/16
C424 10/16
CN402
C-CONN, 9P V WHT PH-SM3
(87-A61-337-08)
TO ĐECK C.B CON2 VIA CNA402
VCC (+5V) 9
CATHOĐE 8
EMITTER 7
SLEĐ MOTOR (-) 6
SLEĐ MOTOR (+) 5
LIMIT SW 4
LIMIT SW 3
SPINĐLE MOTOR (+) 2
SPINĐLE MOTOR (-) 1
R400 33Ω
R403 10k
TO MCU SECTION 1Đ-4Đ
2Đ LSW
1Đ SENSOR
4Đ TRY FWĐ
3Đ TRY REV
TO RF AMP SECTION 1K-4K
3K TRK-R
2K TRK-Đ
1K FCS-R
4K FCS-Đ
TO POWER SECTION 13A, 14A
13A ĐR8V VCC
14A ĐR8V GNĐ
2.5V
C400 0.1
C401 47/6.3
IC401
LA6556L-TE-L
(8A-ZA7-801-01)
TRACKING/FOCUS/SLEĐ/SPINĐLE ĐRIVER
TRY FWĐ
TRY REV
TP400 LOMO-
TP401 LOMO+
TRK-R
TRK-Đ
FCS-R
FCS-Đ
ĐR8V VCC
ĐR8V GNĐ
R412 2.2
C402 0.1
R413 2.2
C403 0.1
C404 220/16
C405 0.1
R414 2.2
C406 0.1
R415 2.2
R417 10k
C407 220p
R418 10k
TP402
1 FWĐ
2 REV
3 VCC2
4 VLO-
5 VLO+
6 VO4+
7 VO4-
8 VO3+
9 VO3-
37 FR
10 VO2+
11 VO2-
12 VO1+
13 VO1-
14 VCC1
15 VIN1
16 VIN1-A
17 VIN1+A
18 VIN1-B
S-GND 36
MUTE2 35
MUTE1 34
VIN4 33
VIN4- 32
VIN4+ 31
VREF-IN 30
VIN1-SW 29
VREF-OUT 28
FR 38
REG-OUT 27
REG-IN 26
VIN3+ 25
VIN3- 24
VIN3 23
VIN2+ 22
VIN2- 21
VIN2 20
VIN1+B 19
AG
R428 10k
R427 10k
C410 220p
R426 10k
R425 10k
TP405
R424 10k
C409 220p
R423 10k
TP404
R421 10k
C408 220p
R420 10k
TP403
ĐMUTE 5Đ
TĐO 1J
FĐO 2J
SPĐO 3J
SLĐO 4J
TO MCU SECTION 5Đ
TO ĐVĐ ĐSP SECTION 1J-4J

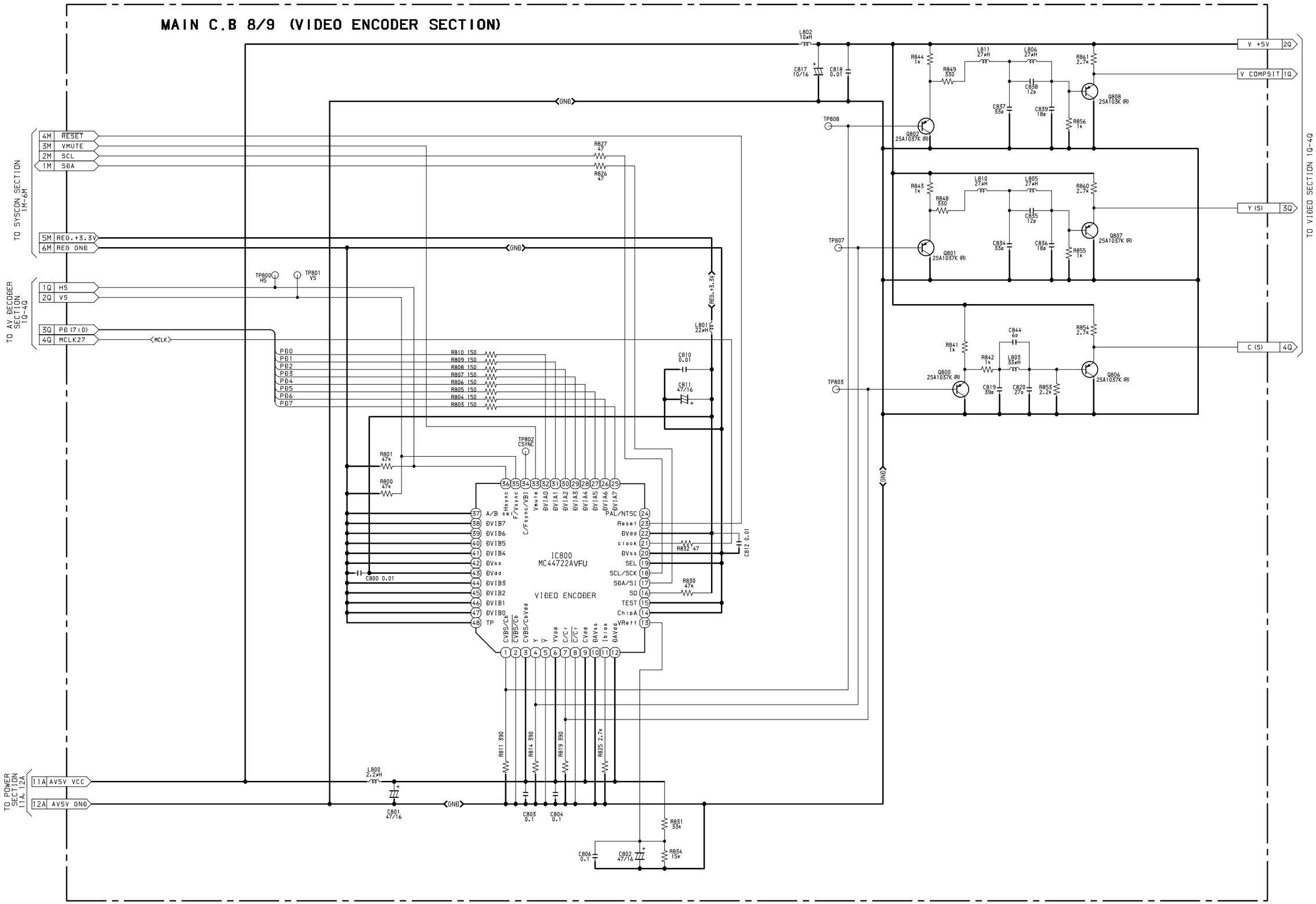
SCHEMATIC DIAGRAM - 6 (MAIN C.B -6/9)

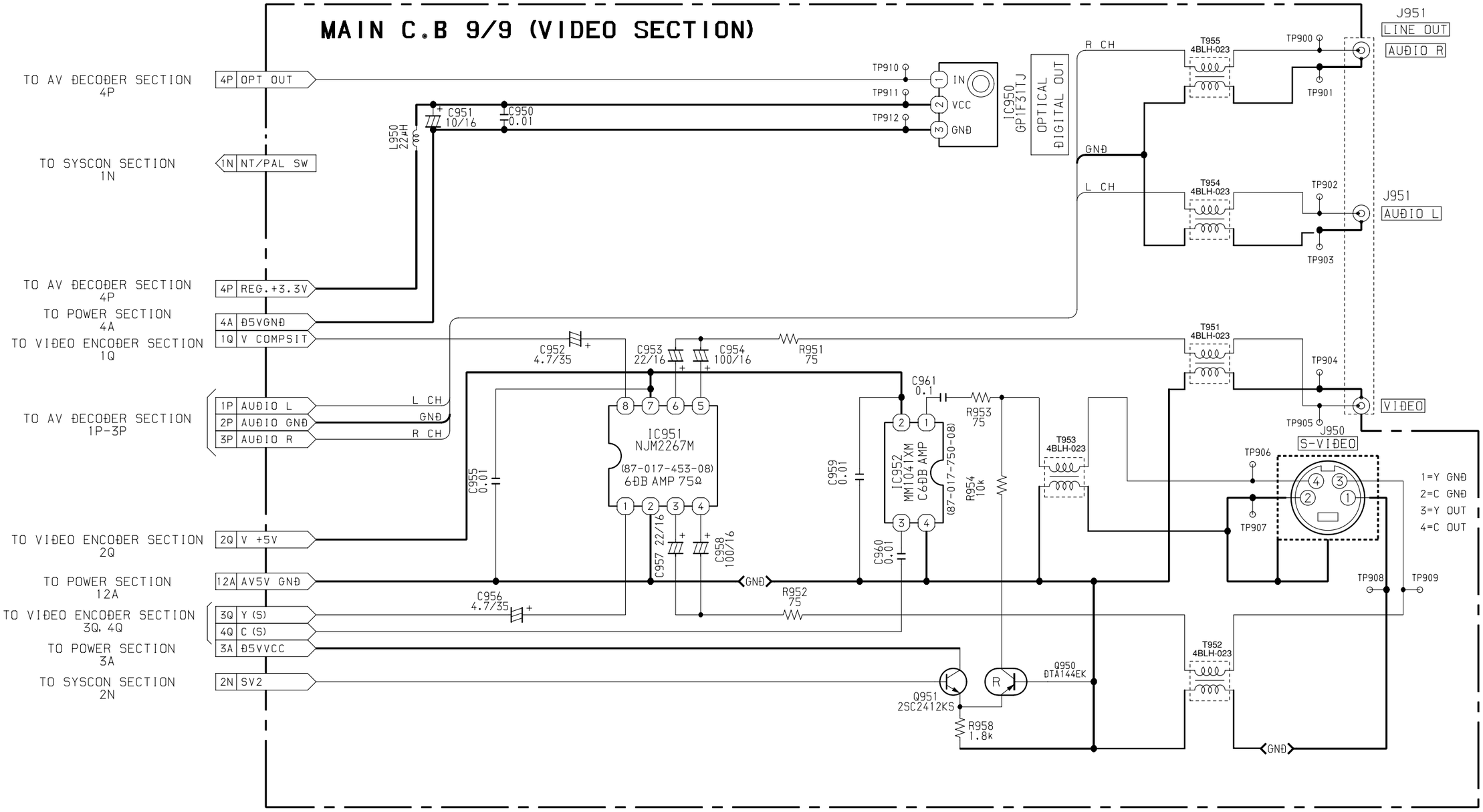


SCHEMATIC DIAGRAM - 7 (MAIN C.B -7/9)

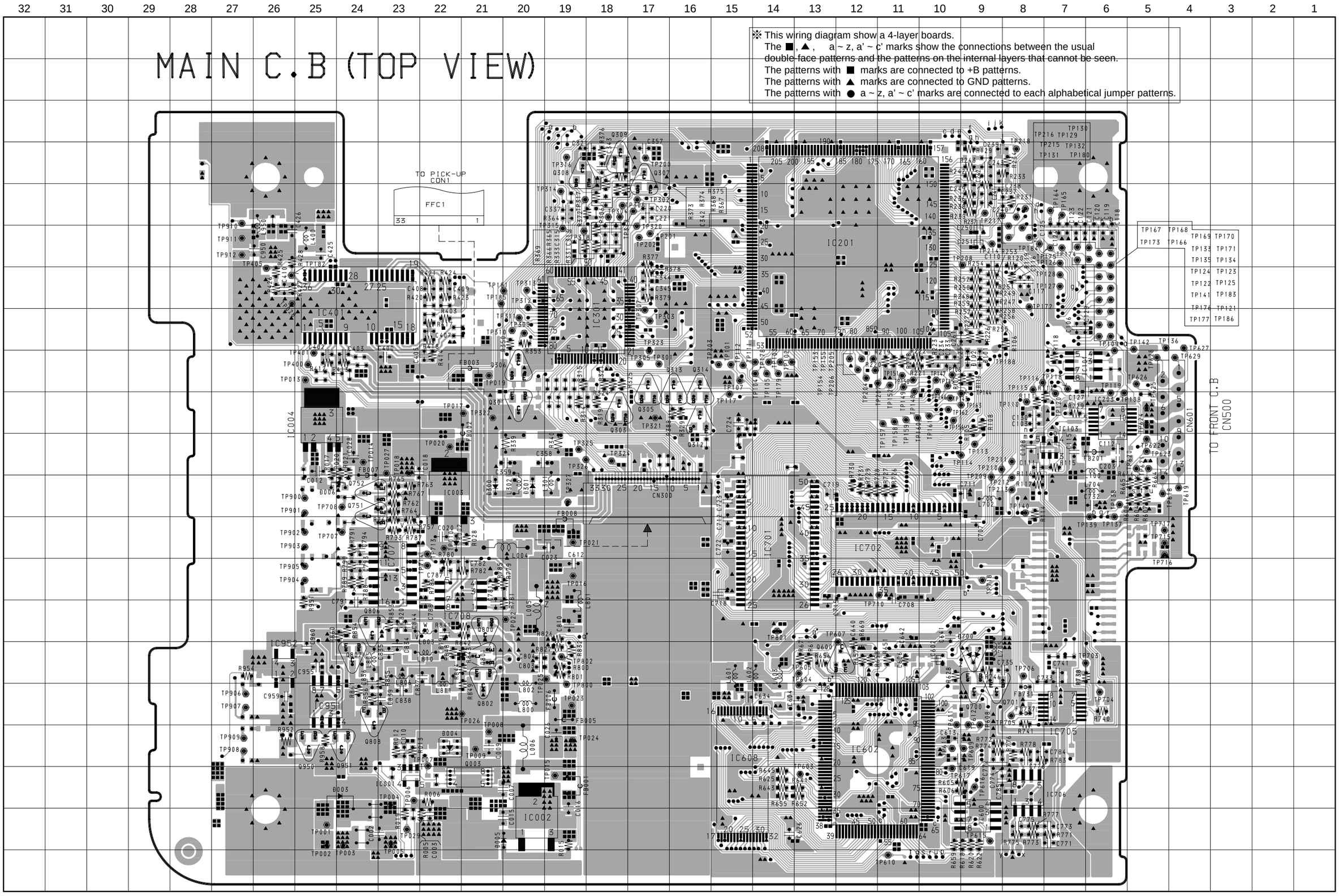


SCHEMATIC DIAGRAM - 8 (MAIN C.B -8/9)

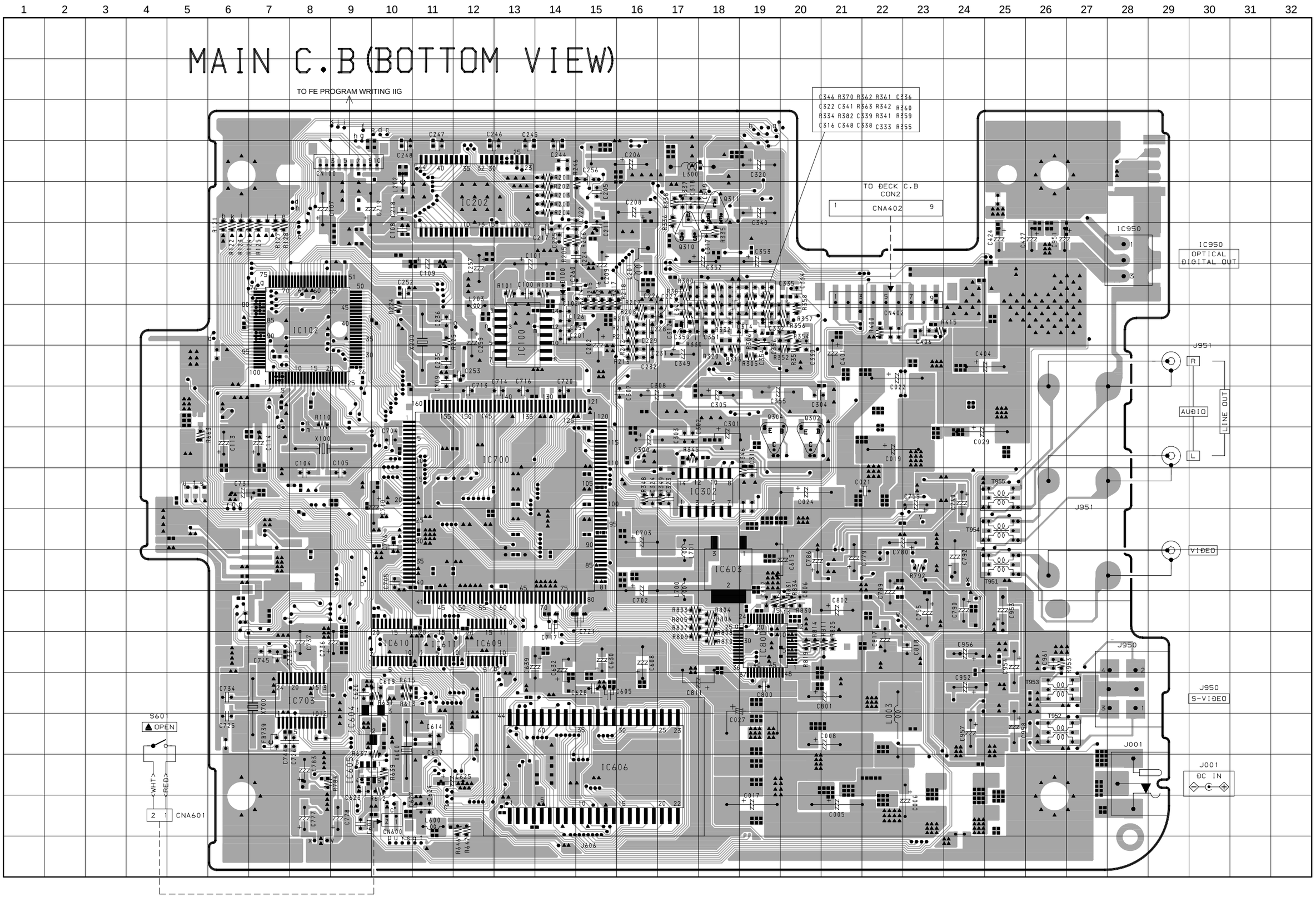


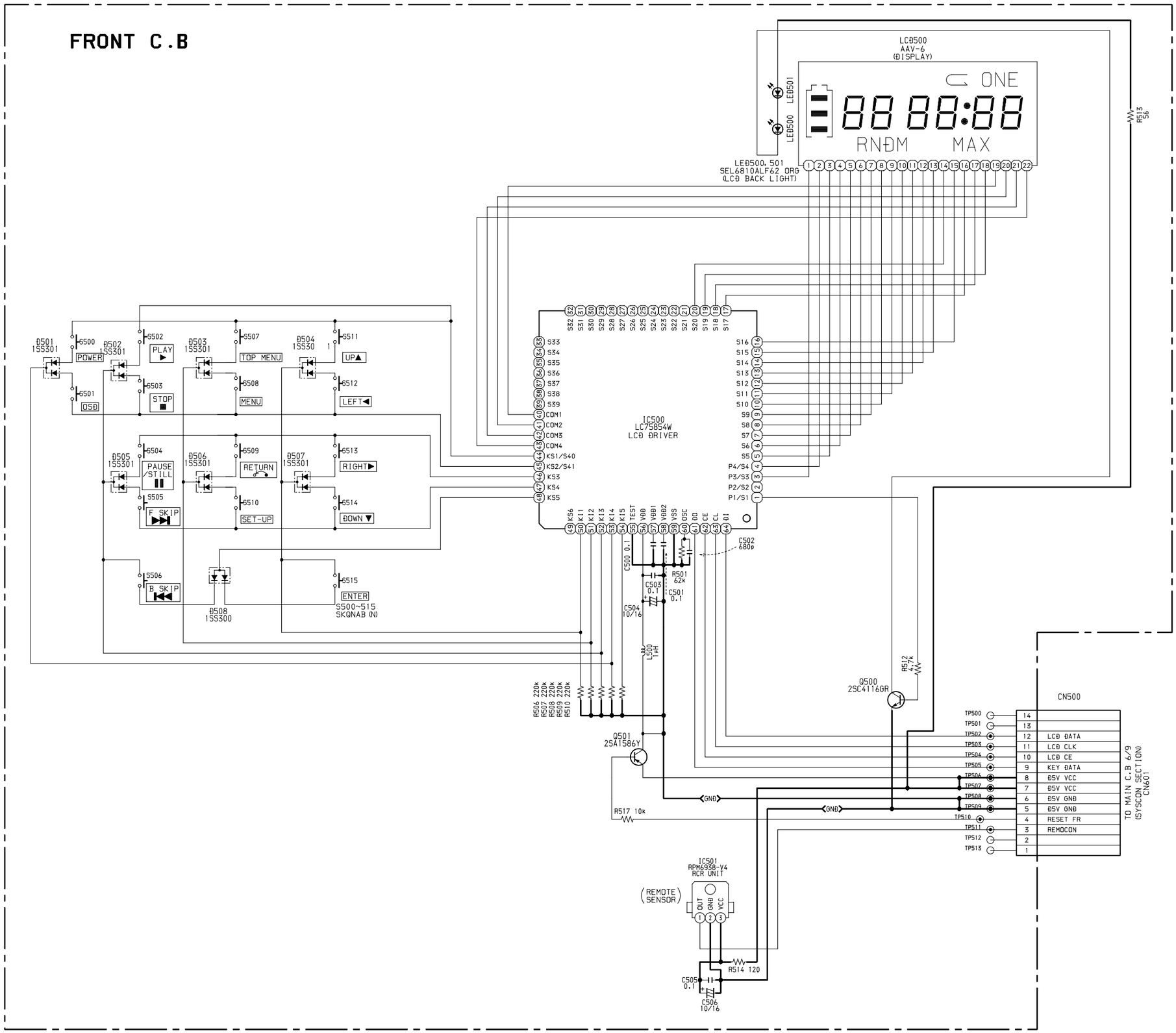

MAIN C.B 9/9 (VIDEO SECTION)
TO AV ĐECOĐER SECTION 4P
4P OPT OUT
TO SYSCON SECTION 1N
1N NT/PAL SW
TO AV ĐECOĐER SECTION 4P
4P REG.+3.3V
TO POWER SECTION 4A
4A Đ5VGNĐ
TO VIĐEO ENCOĐER SECTION 1Q
1Q V COMPSIT
TO AV ĐECOĐER SECTION 1P-3P
1P AUĐIO L
2P AUĐIO GNĐ
3P AUĐIO R
L CH
GNĐ
R CH
TO VIĐEO ENCOĐER SECTION 2Q
2Q V +5V
TO POWER SECTION 12A
12A AV5V GNĐ
TO VIĐEO ENCOĐER SECTION 3Q, 4Q
3Q Y (S)
4Q C (S)
TO POWER SECTION 3A
3A Đ5VVCC
TO SYSCON SECTION 2N
2N SV2
L950 22μH
C951 10/16
C950 0.01
TP910
TP911
TP912
IC950 GP1F31TJ
IN
VCC
GNĐ
OPTICAL ĐIGITAL OUT
R CH
L CH
GNĐ
T955 4BLH-023
T954 4BLH-023
T951 4BLH-023
T953 4BLH-023
T952 4BLH-023
TP900
TP901
TP902
TP903
TP904
TP905
TP906
TP907
TP908
TP909
J951 LINE OUT AUĐIO R
J951 AUĐIO L
J951 VIĐEO
J950 S-VIĐEO
1=Y GNĐ
2=C GNĐ
3=Y OUT
4=C OUT
C952 4.7/35
C953 22/16
C954 100/16
R951 75
C961 0.1
R953 75
C955 0.01
IC951 NJM2267M
(87-017-453-08)
6ĐB AMP 75Ω
C957 22/16
C958 100/16
C959 0.01
IC952 MM1041XM
C6ĐB AMP
(87-017-750-08)
R954 10k
C960 0.01
C956 4.7/35
R952 75
GNĐ
Q951 2SC2412KS
R958 1.8k
Q950 ĐTA144EK
R

WIRING - 1 (MAIN C.B) -Top View

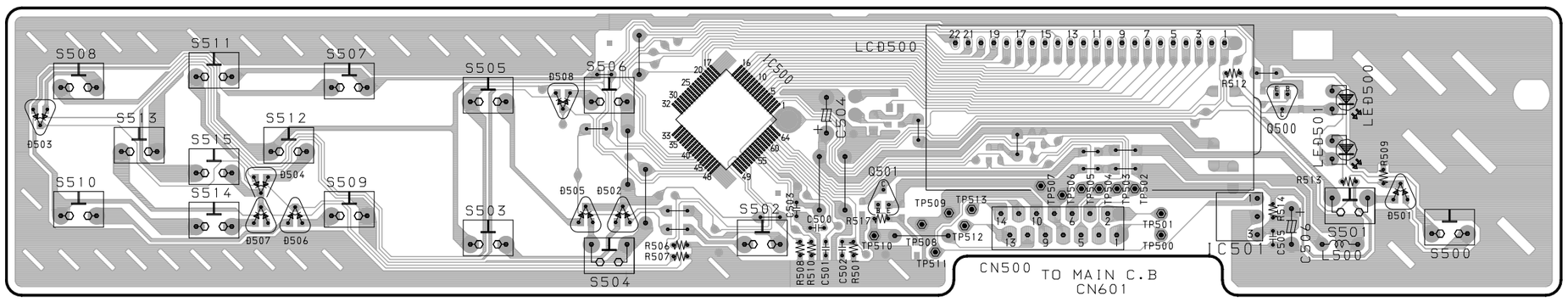

MAIN C.B (TOP VIEW)
※ This wiring diagram show a 4-layer boards.
The ■, ▲, a ~ z, a' ~ c' marks show the connections between the usual double-face patterns and the patterns on the internal layers that cannot be seen.
The patterns with ■ marks are connected to +B patterns.
The patterns with ▲ marks are connected to GND patterns.
The patterns with ● a ~ z, a' ~ c' marks are connected to each alphabetical jumper patterns.
TO PICK-UP CONT
FFC1
TO FRONT C.B CN500
IC201
IC702
IC701
IC708
IC608
IC602
IC705
IC401
IC951
IC952
IC002
IC004
IC003
IC103
IC706

WIRING - 2 (MAIN C.B) -Bottom View-



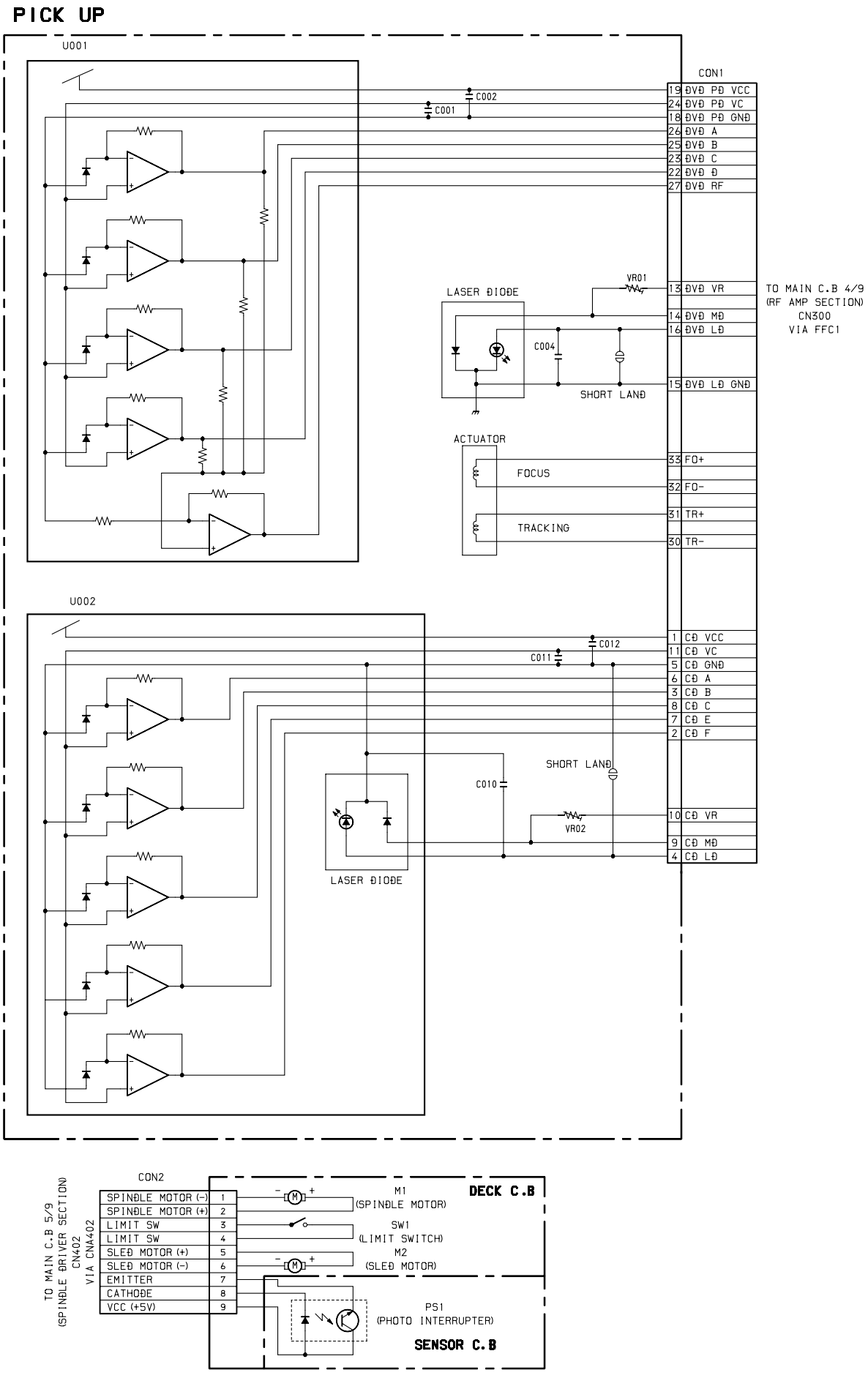

FRONT C.B
LCD500
AAV-6
(DISPLAY)
ONE
RNDM
MAX
LED500
LED501
LED500, 501
SEL6810ALF62 ORG
(LCD BACK LIGHT)
IC500
LC75854W
LCD DRIVER
S16
S15
S14
S13
S12
S11
S10
S9
S8
S7
S6
S5
P4/S4
P3/S3
P2/S2
P1/S1
S33
S34
S35
S36
S37
S38
S39
COM1
COM2
COM3
COM4
KS1/S40
KS2/S41
KS3
KS4
KS5
KS6
KI1
KI2
KI3
KI4
KI5
TEST
VDD
VDD1
VDD2
VSS
OSC
BD
CE
CL
DI
D501
1SS301
S500
POWER
OSD
D502
1SS301
S502
PLAY
S503
STOP
D503
1SS301
S507
TOP MENU
S508
MENU
D504
1SS301
S511
UP
S512
LEFT
D505
1SS301
S504
PAUSE
/STILL
S505
F SKIP
D506
1SS301
S509
RETURN
S510
SET-UP
D507
1SS301
S513
RIGHT
S514
DOWN
S506
B SKIP
D508
1SS300
S515
ENTER
S500~515
SKQNAB (N)
C500 0.1
C502 680p
C503 0.1
R501 62k
C501 0.1
C504 10/16
L500 10H
R506 220k
R507 220k
R508 220k
R509 220k
R510 220k
Q501
2SA1586Y
R517 10k
GND
Q500
2SC4116GR
R512 4.7k
CN500
TP500
TP501
TP502
TP503
TP504
TP505
TP506
TP507
TP508
TP509
TP510
TP511
TP512
TP513
14
13
12 LCD DATA
11 LCD CLK
10 LCD CE
9 KEY DATA
8 D5V VCC
7 D5V VCC
6 D5V GND
5 D5V GND
4 RESET FR
3 REMOCON
2
1
TO MAIN C.B 6/9
(SYSCON SECTION)
CN601
IC501
RPM6938-V4
RCR UNIT
(REMOTE SENSOR)
OUT
GND
VCC
R514 120
C505 0.1
C506 10/16
R513 56

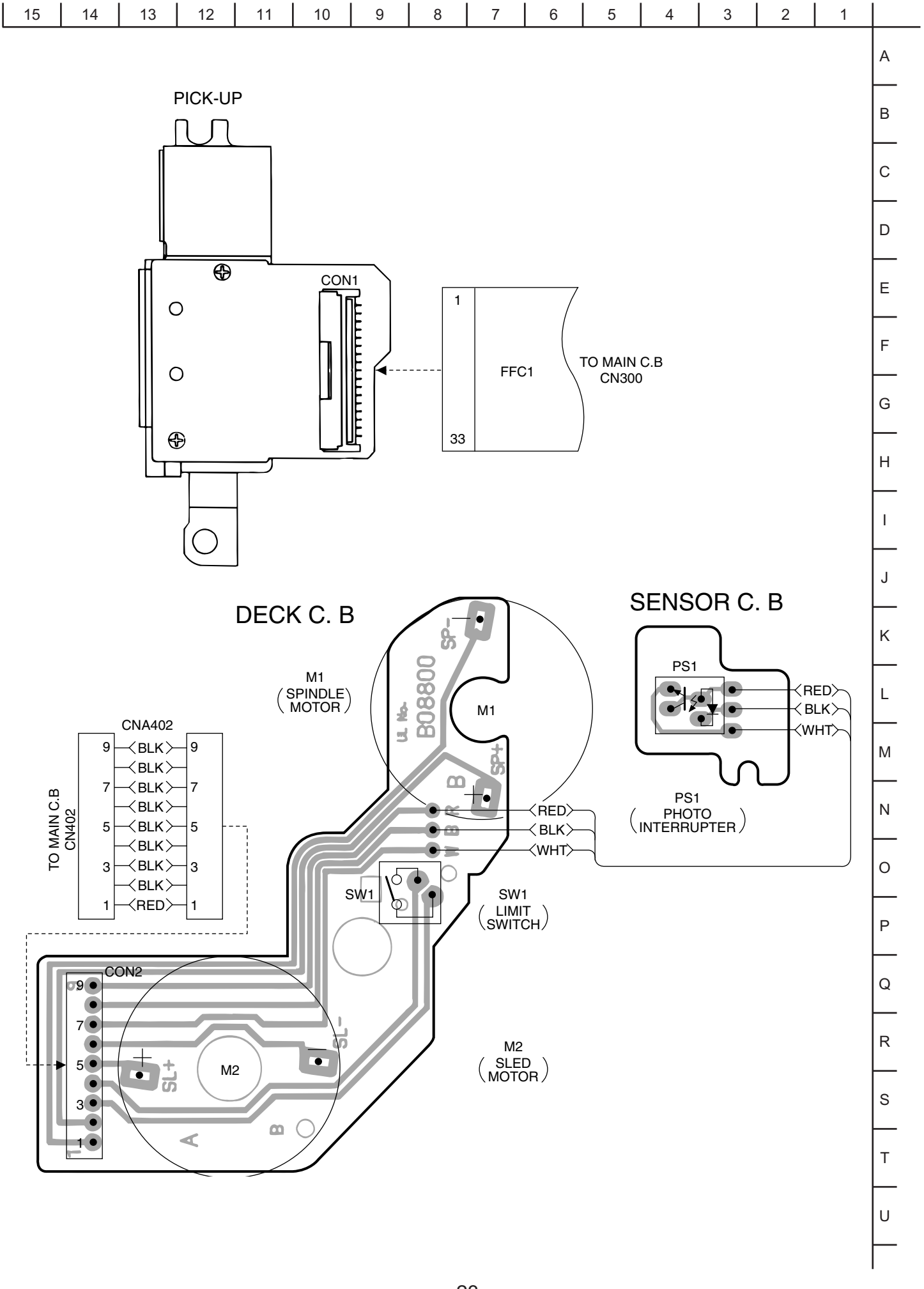
FRONT C.B



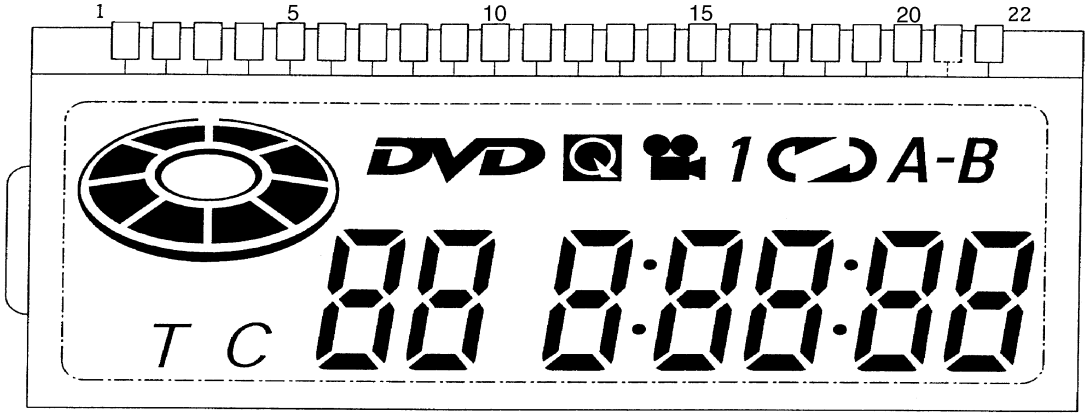
S508 MENU
S511 ▲
S507 TOP MENU
S505 F SKIP ▶▶|
S506 B SKIP |◀◀
S513 ▶
S515 ENTER
S512 ◀
S510 SET UP
S514 ▼
S509 RETURN
S503 STOP ■
S504 PAUSE/STILL ❚❚
S502 PLAY ▷

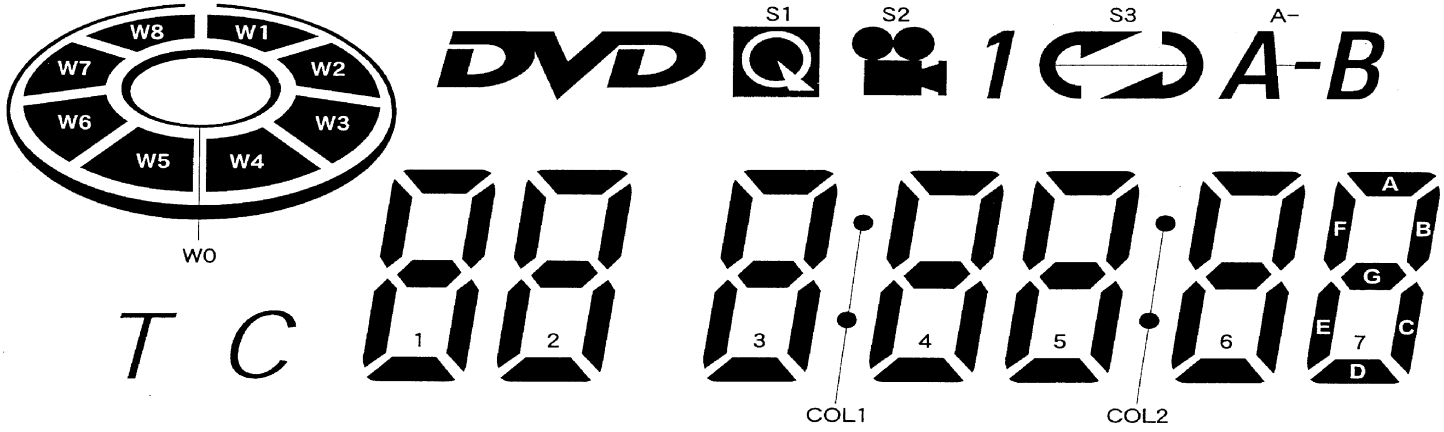
IC501 (REMOTE SENSOR)
S501 OSD
S500 POWER


PICK UP
U001
CON1
C002
C001
19 ĐVĐ PĐ VCC
24 ĐVĐ PĐ VC
18 ĐVĐ PĐ GNĐ
26 ĐVĐ A
25 ĐVĐ B
23 ĐVĐ C
22 ĐVĐ Đ
27 ĐVĐ RF
VR01
LASER ĐIOĐE
13 ĐVĐ VR
14 ĐVĐ MĐ
16 ĐVĐ LĐ
C004
15 ĐVĐ LĐ GNĐ
SHORT LANĐ
TO MAIN C.B 4/9
(RF AMP SECTION)
CN300
VIA FFC1
ACTUATOR
FOCUS
33 FO+
32 FO-
TRACKING
31 TR+
30 TR-
U002
C012
C011
1 CĐ VCC
11 CĐ VC
5 CĐ GNĐ
6 CĐ A
3 CĐ B
8 CĐ C
7 CĐ E
2 CĐ F
SHORT LANĐ
C010
10 CĐ VR
VR02
9 CĐ MĐ
4 CĐ LĐ
LASER ĐIOĐE
CON2
TO MAIN C.B 5/9
(SPINĐLE ĐRIVER SECTION)
CN402
VIA CNA402
SPINĐLE MOTOR (-) 1
SPINĐLE MOTOR (+) 2
LIMIT SW 3
LIMIT SW 4
SLEĐ MOTOR (+) 5
SLEĐ MOTOR (-) 6
EMITTER 7
CATHOĐE 8
VCC (+5V) 9
M1
(SPINĐLE MOTOR)
DECK C.B
SW1
(LIMIT SWITCH)
M2
(SLEĐ MOTOR)
PS1
(PHOTO INTERRUPTER)
SENSOR C.B


15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
A B C D E F G H I J K L M N O P Q R S T U
PICK-UP
CON1
1
33
FFC1
TO MAIN C.B
CN300
DECK C. B
SENSOR C. B
M1
(SPINDLE MOTOR)
M1
SP-
SP+
B08800
CNA402
TO MAIN C.B
CN402
9 BLK 9
BLK
7 BLK 7
BLK
5 BLK 5
BLK
3 BLK 3
BLK
1 RED 1
PS1
RED
BLK
WHT
PS1
(PHOTO INTERRUPTER)
SW1
SW1
(LIMIT SWITCH)
CON2
9
7
5
3
1
SL+
SL-
M2
M2
(SLED MOTOR)
A
B

LCD DISPLAY

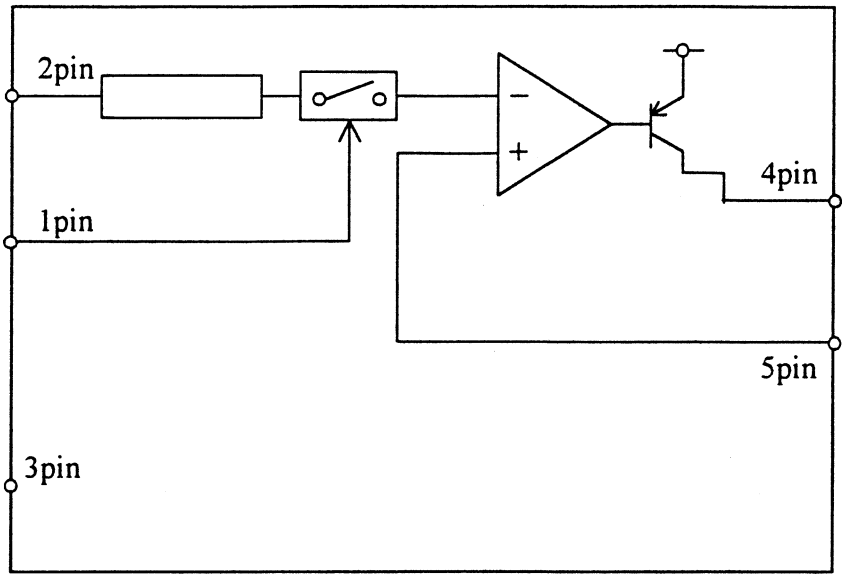




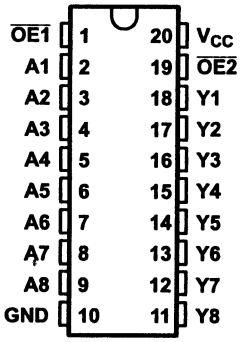
NO	COM1	COM2	COM3	COM4
1	W5	W6	W8	W7
2	W4	W3	W1	W2
3	W0	1F	1G	1E
4	1A	1B	1C	1D
5	DVD	2F	2G	2E
6	2A	2B	2C	2D
7	S1	3F	3G	3E
8	3A	3B	3C	3D
9	——	S2	COL1	C
10	——	4F	4G	4E
11	4A	4B	4C	4D
12	1	5F	5G	5E
13	5A	5B	5C	5D
14	——	S3	COL2	T
15	A-	6F	6G	6E
16	6A	6B	6C	6D
17	B	7F	7G	6E
18	7A	7B	7C	6D
19	COM1	——	——	——
20	——	COM2	——	——
21	——	——	COM3	——
22	——	——	——	COM4

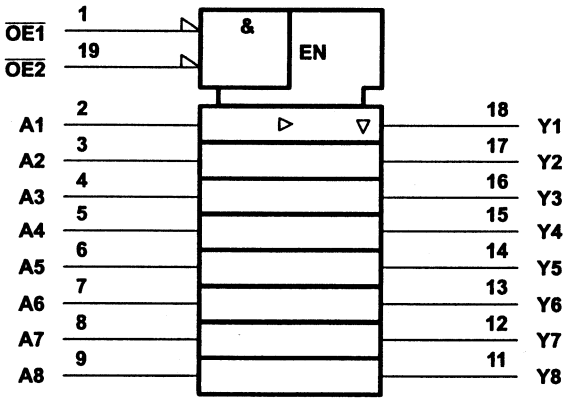
IC BLOCK DIAGRAM -1/3

IC, BA00ASFP



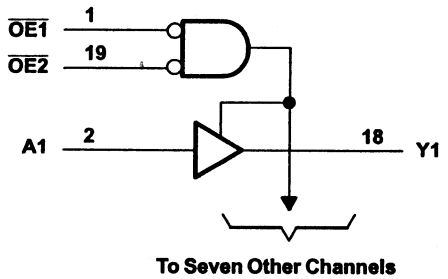
IC, SN74LV541APW





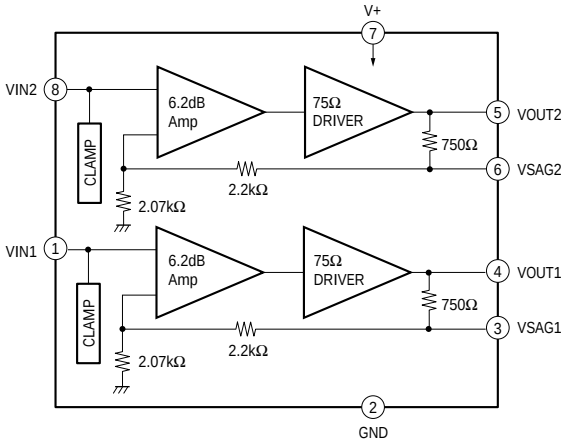
INPUTS			OUTPUT
$\overline{OE1}$	$\overline{OE2}$	A	Y
L	L	L	L
L	L	H	H
H	X	X	Z
X	H	X	Z

H : High level
L : Low level
X : Not designated
Z : High impedance condition

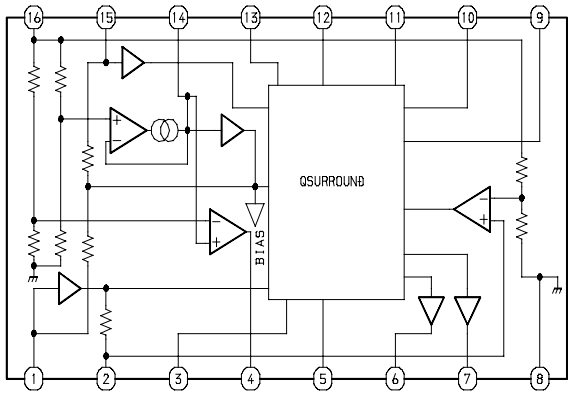


IC BLOCK DIAGRAM -2/3

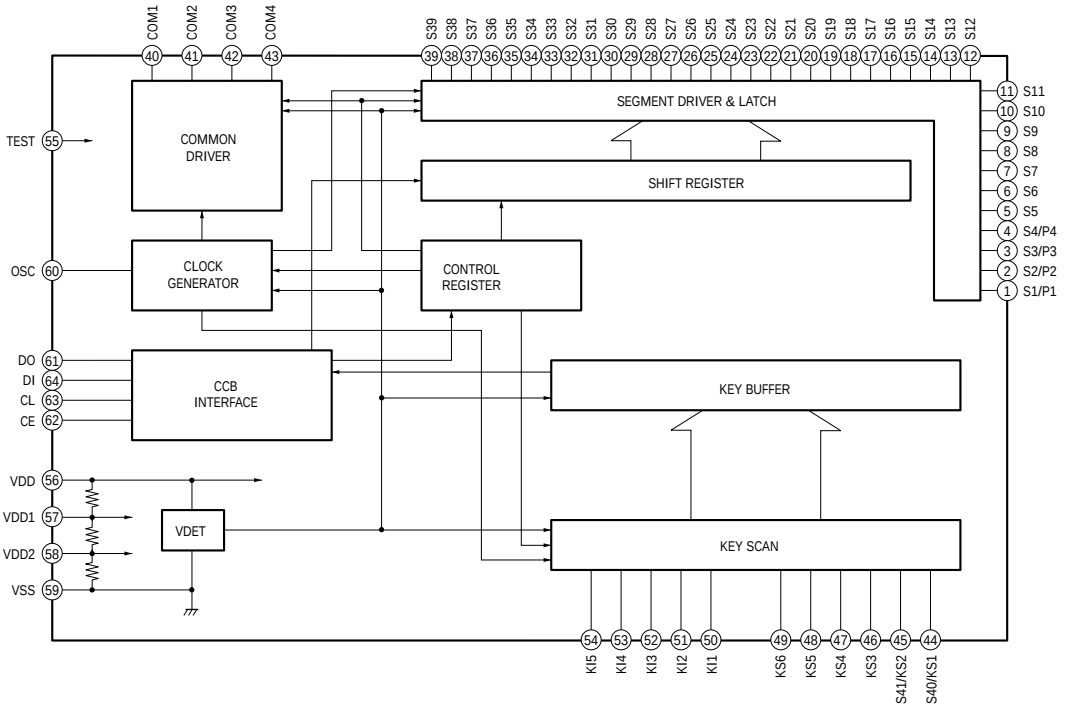
IC, NJM2267M



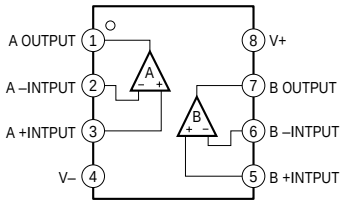
IC, MM1454XFBE



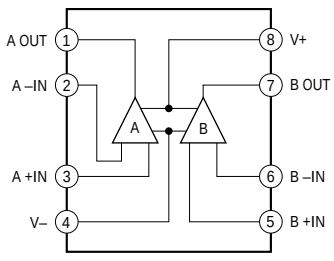
IC, LC75854W



IC, NJM2100M

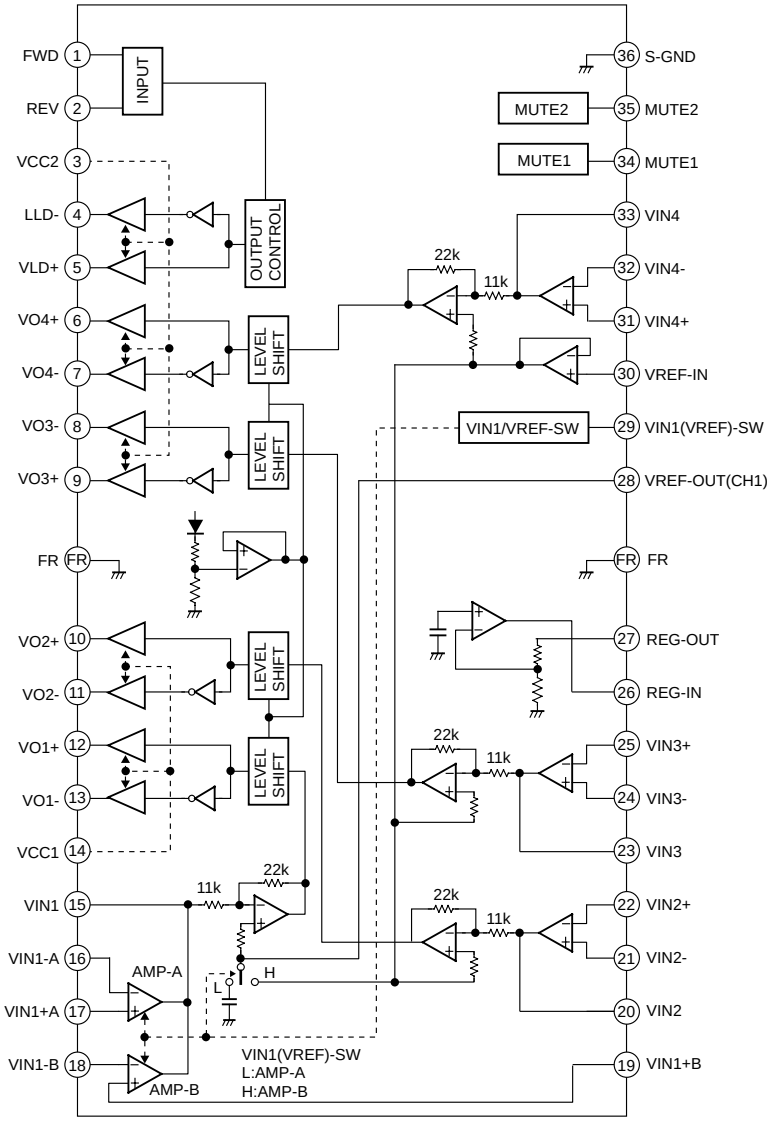


IC, MJM4580E

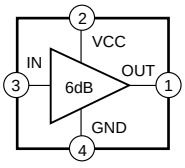


IC BLOCK DIAGRAM -3/3

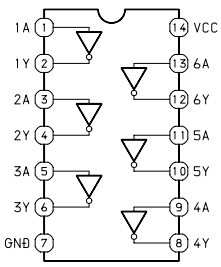
IC, LA6556L-TE-L



IC, MM1041XM



IC, TC74HC14AF



TRUTH TABLE

1A～6A	1Y～6Y
L	H
H	L

IC DESCRIPTION - 1/6 (MC44722AVFU) -1/1

Pin No.	Pin Name	I/O	Description
1	CVBS/CB	O	Analog composite video signal or Cb signal output current drive (positive)
2	$\overline{\text{CVBS/CB}}$	O	Analog composite video signal or Cb signal output current drive (negative)
3	CVBS/CBVDD		Power supply for CVBS/Cb DAC circuit
4	Y	O	Analog luminance signal output current drive (positive)
5	$\overline{\text{Y}}$	O	Analog luminance signal output current drive (negative)
6	YVDD	–	Power supply for Y DAC circuit
7	C/CR	O	Analog signal output or Cr signal output drive (positive)
8	$\overline{\text{C/CR}}$	O	Analog signal output or Cr signal output drive (negative)
9	CVDD	–	Power supply for C/Cr DAC circuit
10	DAVSS	–	Ground for DAC circuit
11	TBIAS	O	Reference current for the 3 DACs
12	DAVDD	–	Power supply for DAC current
13	VREF	–	Reference full scale voltage for the 3 DACs
14	CHIPA	I	12C chip address select (0 : 42(hex)/43(hex), 1 : IC(hex)/1D(hex)
15	TEST	I	TEST pin (Ground)
16	SO	O	If SPI mode, serial data output/If 12C mode, connect to ground
17	SDA/SI	I/O	Serial data input, open drain output. If SPI mode, serial data input.
18	SCL/SCK	I	Serial clock
19	SEL	I	Connect to ground. If SPI mode, this pin is chip select.
20	DVSS	–	Ground for digital circuit
21	CLOCK	I	27 MHz clock input
22	DVDD	–	Power supply for digital circuit
23	RESET	I	Reset signal (active Low)
24	PAL/NTSC	I	NTSC/PAL select. This pin active only reset time (NTSC: Low, PAL: High)
25 ~32	DVIA7 ~ 0	I	8-bit multiplexed Y/Cr/Cb 4:2:2 data (ITU-Rec656) input (DVIA), or multiplexed Y data (ITU-Rec656/601) input in 16-bit input mode (DVIA7: MSB)
33	VMUTE	I	Video mute on reset (0: normal, 1: mute), or test data input
34	C/FSYNC/VBI	I/O	Csync/frame sync output or external VBI information input
35	F/VSYNC	I/O	Frame sync or vertical sync input/output
36	HSYNC	I/O	Horizontal sync input/output
37	A/B SEL	I/O	Switch control for 8-bit X2 multiplexed Y/Cr/Cb 4:2:2 data (ITU-Rec656) input (DVIA) or (DVIB), or test data I/O
38 ~ 41	DVIB7 ~ 4	I/O	8-bit multiplexed 4:2:2 data (ITU-Rec656/601) input (2), or multiplexed Cr/Cb data (ITU-Rec656/601) input in 16-bit input mode (MSB DVIB 8), or test data I/O
42	DVSS	–	Ground for digital curcuit
43	DVDD	–	Power supply for digital circuit
44 ~ 47	DVIB3 ~ 0	I/O	8-bit multiplexed 4:2:2 data (ITU-Rec656/601) input (DVIB), or multiplexed Cr/Cb data (ITU-Rec656/601) input in 16-bit input mode (LSB DVIB), or test data I/O
48	TP	I/O	for test (should be ground)

Pin No.	Pin Name	I/O	Description
1	VSS	I	Ground.
2 ~ 5	SBD_7 ~ 4	I/O	SDRAM data bus 7 ~ 4.
6	VDD	I	Power (3.3V).
7 ~ 10	SBD_3 ~ 0	I/O	SDRAM data bus 3 ~ 0.
11	VSS	I	Ground.
12 ~ 19	CH_DATA_0 ~ 7	I	Channel data bus 0 ~ 7.
20	VSS	I	Ground.
21	$\overline{\text{TOS}}$	I	Top of sector.
22, 23	NC	I	Not connected.
24	$\overline{\text{ERROR}}$	I	Error.
25	VDD	I	Power (3.3V).
26	$\overline{\text{AVALID}}$	I	Audio data valid.
27	$\overline{\text{VVALID}}$	I	Video data valid.
28	DCK	I	Data clock.
29	$\overline{\text{VREQ}}$	O	Video transfer request.
30	$\overline{\text{AREQ}}$	O	Audio transfer request.
31, 32	NC	—	Not connected.
33	VSS	I	Ground.
34 ~ 39	A_8 ~ 3	I	Address 8 ~ 3.
40	VDD	I	Power (3.3V).
41	NC	—	Not connected.
42	VDD	I	Power (3.3V).
43 ~ 45	A_2 ~ 0	I	Address 2 ~ 0.
46	VSS	I	Ground.
47 ~ 54	D_7 ~ 0	I/O	Host data bus 7 ~ 0.
55	VSS	I	Ground.
56	SYSCLK	I	System clock.
57	$\overline{\text{RESET}}$	I	Reset.
58	$\overline{\text{DREQ}}$	O	DMA transfer request.
59	$\overline{\text{INTR}}$	O	Interrupt.
60	BUSMODE	I	Busmode.
61	VDD	I	Power (3.3V).
62	$\overline{\text{RDY}}$	O	Ready.
63	$\overline{\text{READ}}$	I	Read indicator.
64	$\overline{\text{WRITE}}$	I	Write indicator.
65	$\overline{\text{WAIT}}$/WTN	I/O	Wait.
66	VSS	I	Ground.
67	NC	—	Not connected.
68	$\overline{\text{CS}}$	I	Chip select.
69	VS	I	Vertical synchronization.
70	HS	I	Horizontal synchronization.

Pin No.	Pin Name	I/O	Description
71	VDD	I	Power (3.3V).
72	OSD_ACTIVE	O	On screen display active.
73, 74	PD_0, 1	O	Pixel data output bus 0, 1.
75	VSS	I	Ground.
76-78	PD_2-4	O	Pixel data output bus 2-4.
79	VDD	I	Power (3.3V).
80	NC	—	Not connected.
81	VSS	I	Ground.
82 ~ 84	PD_5 ~ 7	O	Pixel data output bus 5 ~ 7.
85	VSS	I	Ground.
86	BLANK	O	Blank (composite).
87	CREF	O	Chroma reference for pixel data.
88 ~ 91	EXT_OSD_0 ~ 3	I	External OSD palette selection bus 0 ~ 3.
92	NC	O	Not connected.
93	VDD	I	Power (3.3V).
94	ACLK_441	I	Audio input clock for 44.1kHz*N.
95	ACLK_48	I	Audio input clock for 48kHz*N.
96	ACLK_32	I	Audio input clock for 32kHz*N.
97	VSS	I	Ground.
98	CD_BCLK	I	CD-Serial DAC bit clock.
99	CD_LRCLK	I	CD-Left right clock.
100	CD_ACLK	I	CD-External audio clock.
101	CD_ASDATA	I	CD-Audio serial data line.
102	SPDIF_IN	I	Sony/Philips data interface-input.
103	A_ACLK	O	Output audio clock.
104	VDD	I	Power (3.3V).
105	BCLK	O	Serial DAC bit clock.
106	LRCLK	O	Serial DAC left right clock.
107	ASDATA	O	Audio serial data line.
108, 109	NC	O	Not connected.
110	VSS	I	Ground.
111	SPDIF_OUT	O	Sony/Philips data interface output.
112	AUDIO_SYNC	O	Audio sync strobe.
113, 114	TM1, TM0	I	Test mode 1, 0.
115	ZTEST	I	Test mode pin.
116	SCAN_TE	I	Scan test mode pin.
117	$\overline{\text{PREQ}}$	O	PCM FIFO request.
118	VDD	I	Power (3.3V).
119, 120	SBD_15, 14	I/O	SDRAM data bus 15, 14.
121	NC	—	Not connected.
122	SBD_13	I/O	SDRAM data bus 13.

Pin No.	Pin Name	I/O	Description
123	VSS	I	Ground.
124 ~ 126	SBD_12 ~ 10	I/O	SDRAM data bus 12 ~ 10.
127	VDD	I	Power (3.3V).
128, 129	SBD_9, 8	I/O	SDRAM data bus 9, 8.
130	SCLK	I/O	SDRAM 81MHz clock.
131	VSS	I	Ground.
132 ~ 134	SBA_9 ~ 7	O	SDRAM address bus 9 ~ 7.
135	VDD	I	Power (3.3V).
136 ~ 138	SBA_6 ~ 4	O	SDRAM address bus 6 ~ 4.
139	VSS	I	Ground.
140 ~ 142	SBA_3 ~ 1	O	SDRAM address bus 3 ~ 1.
143	VDD	I	Power (3.3V).
144	SBA_0	O	SDRAM address bus 0.
145, 146	SBA_10, 11	O	SDRAM address bus 10, 11.
147	VSS	I	Ground.
148	$\overline{\text{SCS1}}$	O	Chip select for second DRAM.
149	$\overline{\text{SCS}}$	O	Chip select for SDRAM.
150	$\overline{\text{SRAS}}$	O	SDRAM row address strobe.
151	VDD	I	Power (3.3V).
152	$\overline{\text{SCAS}}$	O	SDRAM column address strobe.
153	$\overline{\text{SWE}}$	O	SDRAM write enable.
154	SDQM	O	SDRAM control pin.
155	VSS	I	Ground.
166	PLLVDD	I	Power-phase locked loop for SDRAM.
157	NC	—	Not connected.
158	PLLVSS	I	Phase locked-loop ground pin.
159	VDD	I	Power (3.3V).
160	NC	—	Not connected.

IC DESCRIPTION - 3/6 (HD6412350F20) -1/3

Pin No.	Pin Name	I/O	Description
1	$\overline{\text{CS1ROM}}$	—	Not used.
2	$\overline{\text{CS0ROM}}$	O	Chip select output terminal for ROM.
3, 4	VSS	I	GND.
5	VCC	I	Power input terminal. EVER 5 V.
6 ~ 9	A0 ~ 3	O	Address bus output terminal.
10	VSS	I	GND.
11 ~ 18	A4 ~ 11	O	Address bus output terminal.
19	VSS	I	GND.
20 ~ 27	A12 ~ 19	O	Address bus output terminal.
28	VSS	I	GND.
29	A20	O	Not used.
30	CODEC_ERR	—	Not used.
31	$\overline{\text{INT\_VDEC}}$	I	Interrupt signal for AV DECODER IC.
32	$\overline{\text{HD\_INT}}$	I	Interrupt signal from LOADER.
33, 34	P67, 66	—	Not used.
35, 36	VSS	I	GND.
37	SCL	O	EEPROM serial clock output.
38	SDA	I/O	EEPROM serial data I/O.
39	VCC	I	Power input terminal. EVER 5 V.
40 ~ 43	D0 ~ 3	I/O	Data bus input/output terminal.
44	VSS	I	GND.
45 ~ 52	D4 ~ 11	I/O	Data bus input/output terminal.
53	VSS	I	GND.
54 ~ 57	D12 ~ 15	I/O	Data bus input/output terminal.
58	VCC	I	Power input terminal. EVER 5 V.
59	TXD0	O	Data output terminal for FL DRIVER IC serial communication control.
60	TXD1	O	Data output terminal for LOADER serial communication control.
61	RXD0	I	Data input terminal for FL DRIVER IC serial communication control.
62	RXD1	I	Data input terminal for LOADER serial communication control.
63	SCK0	O	Clock output terminal for FL DRIVER IC serial communication control.
64	SCK1	O	Clock output terminal for LOADER serial communication control.
65	VSS	I	GND.
66	$\overline{\text{CS VDEC}}$	O	Chip select output terminal for AV DECODER IC.
67, 68	VSS	I	GND.
69	$\overline{\text{CS5}}$	O	Chip select output terminal for SRAM.
70	DREQ1	I	MPEG decoder data request.
71	RESET FR	O	Reset for Front Board.
72	CS_FR	O	FL DRIVER IC chip select output terminal.
73	$\overline{\text{SYSRST}}$	O	System reset signal output terminal.
74	REMOCON	I	Remote control signal input terminal.
75	USCL	O	I^2C clock output terminal for EEPROM, video encoder IC.

Pin No.	Pin Name	I/O	Description
76	USDA	I/O	I^2C data input/output terminal for EEPROM, video encoder IC.
77	UML	O	Data enable signal output terminal for AUDIO DAC IC control.
78	UMC	O	Clock for AUDIO DAC IC control.
79	UMD	O	Data output terminal for AUDIO DAC IC control.
80	$\overline{\text{WDTOVF}}$	O	Watch dog timer overflow signal output terminal.
81	$\overline{\text{RESET}}$	I	Micro processor reset input terminal.
82	NMI	I	Fixed is to “H”.
83	$\overline{\text{STBY}}$	I	
84	VCC	I	Power input terminal. EVER 5 V.
85	XTAL	I	Crystal oscilator input terminal. 20 MHz.
86	EXTAL	I	
87	VSS	I	GND.
88	fO	—	Not used. (System clock output for external device.)
89	VCC	I	Power input terminal. EVER 5 V.
90	$\overline{\text{AS}}$	—	Not used. (Address strobe.)
91	$\overline{\text{RD}}$	O	Lead signal output terminal for bus control.
92	$\overline{\text{HWR}}$	O	“H” write signal output terminal for bus control.
93	$\overline{\text{LWR}}$	O	“L” write signal output terminal for bus control.
94	$\overline{\text{WAIT}}$	O	Bus request output terminal.
95	PFO	—	Not used. (Bus request acknowlege.)
96	HRST	O	Reset signal output terminal for LOADER.
97, 98	YS SCK, YS SI	—	Not used.
99, 100	VSS	I	GND.
101	Q_SURROUND	O	Q SURROUND IC control terminal. ON = H OFF = L.
102	TEST MUTE	—	Not used.
103	AVCC	I	Power supply input terminal for A/D. EVER 5V.
104	VREF	I	Reference voltage input terminal for A/D. EVER 5V.
105	V-DET	—	Not used.
106	$\overline{\text{NTSC}}$/PAL	I	NTSC: L, PAL: H (for DVD output)
107	REGION	I	DVD REGION CODE, 1: 0 ~ 1 V, 2: 1 ~ 2 V, 3: 2 ~ 3 V, 4: 3 ~ 4 V, 5: 4 ~ 5 V.
108	ECOHVOL	I	Karaoke echo volume control 0 ~ 5 V.
109	SW	I	NTSC/PAL serect (for VIDEO CD) (Not used).
110	C2PO	—	Not used.
111	EMPH	—	Not used.
112	SV2	O	Voltage output for S2 terminal. S1 = 5V S2 = 2.5 V Normally = 0 V.
113	AVSS	I	GND.
114	VSS	I	
115	AK4527CS	—	Not used. (pull up)
116	RGB/YC	—	Not used.
117	YS912 $\overline{\text{CBS}}$	—	Not used. (pull up)
118	CS-KARAOKE	—	Not used. (pull up)

IC DESCRIPTION - 3/6 (HD6412350F20) -3/3

Pin No.	Pin Name	I/O	Description
119	AMUTE	O	Audio signal (analog audio) output mute control terminal ON = H OFF = L.
120	POWER ON	O	Power supply control terminal ON = H OFF = L.
121	A MUTE AC-3	—	Not used.
122	YS917 $\overline{CS}$	—	Not used,
123, 124	MD0, 1	I	Operation mode control Fixed to L.
125	MD2	I	Operation mode control Fixed to H.
126	PG0	—	Not used. (VMUTE control)
127	LID	I	OPEN/CLOSE sensor
128	RDY HIF	I	Front END µcom RDY

IC DESCRIPTION - 4/6 (LC87F72C8A)-1/2

Pin No.	Pin Name	I/O	Description
1	SUBRXD	I	DATA input terminal for LOADER serial communication control.
2	SUBSCK	I	Clock input terminal for LOADER serial communication control.
3	LEDD1	O	Detection of LEDD1.
4	LEDCSB	O	Detection of LEDCSB.
5	LEDCLK	O	Detection of LEDCLK.
6	RDY_HIF	O	LOADER READY signal output terminal.
7	PWM	O	Detection of PWM.
8	RESET	I	Reset signal input terminal.
9	XT1/AN10	I	Input for 32.768kHz crystal oscillation. AD input port: AN10. (Connected to power supply)
10	XT2/AN11	I/O	Out put for crystal oscillation. AD input port: AN11. (Not Connected)
11	GND	—	GND.
12	CLOCK	I	In put for 10MHz crystal oscillation.
13	CLOCK	O	Out put for 10MHz crystal oscillation.
14	+5V	—	Power supply 5V.
15	TESTKEY	O	TESTKEY output pin.
16	BUSYB	I	DSP command dispose busy signal input pin.
17	FBUSYB	I	DSP command receiver busy signal input pin.
18	HEXKEY	O	Detection of HEXKEY.
19	P84/AN4	O	Detection of P84/AN4.
20	OPEN_SW	O	Detection of OPEN SW.
21	CLOSE_SW	O	Detection of CLOSE SW pin.
22	LSW	I	LIMIT SW input pin.
23	HIRQB	I	Interrupt signal input pin.
24	INT_SUBSCK	I	Clock input terminal for LOADER serial communication control.
25	FGO	I	SENSER input.
26	WRQ	I	Subcode Q read ready monitor input.
27	S0/PA0	O	LCD display segment output. (Not Connected)
28	FEL_CSBI	O	Chip select signal output pin.
29	FEL_CSBO	O	Chip select signal output pin.
30	ZWR	O	Write signal output pin.
31	ZRD	O	Read signal output pin.
32	S5/PA5	O	FECONT control output pin.
33	WAITB	I	Wait signal input pin.
34	S7/PA7	I/O	Detection of S7/PA7.
35 ~ 42	DB0 ~ 7	I/O	Data 0 ~ 7.
43 ~ 50	AB0 ~ 7	O	Address 0 ~ 7.
51	+5V	—	Power supply 5V.
52	GND	—	GND.
53	S24/PD0	O	Detection of S24/PD0.
54	DEFINHB	O	DEFINHB control output.
55	TOPEN	I	RF general-purpose port output pin 0.

Pin No.	Pin Name	I/O	Description
56	CURRENT	I	RF general-purpose port output pin 2.
57	RW_DISC	O	RW DISC control output pin.
58	DUAL	O	DUAL control output pin.
59	DECRESB	O	Decoder reset output pin.
60	EVARESOB	O	System reset output pin.
61 ~ 65	AB8-12	O	Address 8-12.
66-68	S37-39/PE5 ~ 7	O	Detection of S37-39/PE5 ~ 7.
69 ~ 72	CONT1-4	O	CONT1-4 output pin.
73	S44/PF4	O	Detection of S44/PF4.
74, 75	OUT 1, 2	O	Detection of OUT 1, 2.
76	HD_INT	O	Interropt signal for AV DECODER IC/TEST PIN.
77 ~ 79	V3-1/PL6 ~ 4	O	Detection of V3-1/PL6 ~ 4.
80 ~ 83	COM0-3/PL0 ~ 3	O	Detection of COM0-3/PL0 ~ 3.
84	TRY_FWD	O	TRY control output.
85	TRY_REV	O	TRY control output.
86	GND	—	GND.
87	+5V	—	Power supply pin (+).
88	DMUTE	O	MUTE output pin.
89	F_DIO	O	F_DIO output pin.
90	F_CLK	O	F_CLK output pin.
91	F_DIOI	O	F_DIOI output pin.
92	DPD_TEB	O	DPD_TEB output.
93	RFSCT	O	RFSCT control output.
94	XQBH	O	XQBH out put. (Not Connected)
95	EQSCT	O	EQSCT output.
96	CD3T	O	CD3T control output.
97	PP_TEB	O	PP TEB output.
98, 99	LDON1, 2	O	LDON 1, 2 output.
100	SUBTXD	O	DATA output terminal for LOADER serial communication control.

Pin No.	Pin Name	I/O	Description
1	RFPI	I	RF input port pin. (Pull down)
2	TEST0	I/O	Tracking margin signal I/O pin.
3	DVDD2	—	A/D D/A internai logic power supply. [Digital 5V]
4	DVSS	—	Digital GND.
5	AD5/BH	I	Servo A/D input pin. (AD5: Assistant input 5)
6	AD4/PH/TE	I	Servo A/D input pin. (AD4: Assistant input 4)
7	AD3	I	Servo A/D input pin. (AD3: Assistant input 3)
8	AD2	I	Servo A/D input pin. (AD2: Assistant input 2)
9	AD1/JV	I	Servo A/D input pin. (AD1: Assistant input 1)
10	AD0/RREC	I	Servo A/D input pin. (AD0: Assistant input 0)
11	RF_PH	I	Servo A/D input pin. (RF_PH: RF peak hold signal)
12	RF_BH	I	Servo A/D input pin. (RF_BH: RF bottom hold signal)
13	TE	I	Servo A/D input pin. (TE: Tracking error signal)
14	FE	I	Servo A/D input pin. (FE: Focus error signal)
15	TEST0	I	Test input pin 0. (L Fixed)
16	EFMINP	I	EFM/EFM+input pin.
17	TEST1	I	Test input pin 1. (L Fixed)
18	EFMINN	I	EFM-input pin.
19	SLCLPF0	—	SLC LPF pin.
20	SLCLPF1	—	SLC LPF pin.
21	SLC01	—	SLC control pin.
22	SLC02	—	SLC control pin.
23	AVDD1	—	A/D D/A SLC power supply. [Analog 5V]
24	ADSS	—	Analog GND.
25	VREF	O	Servo D/A standerd voltage.
26	SLCBIAS	O	Servo D/A output pin. (SLCBIAS: SLC standerd voltage signal)
27	TESBIAS	O	Servo D/A output pin. (TESBIAS: TES standerd voltage signal)
28	HFLBIAS	O	Servo D/A output pin. (HFLBIAS: HFL standerd voltage signal)
29	OFSET	O	Servo D/A output pin. (OFSET: Assistant signal)
30	BCA	O	Servo D/A output pin. (BCA: Assistant signal)
31	BOOT3T	O	Servo D/A output pin. (BOOT3T: Assistant signal)
32	RFVCA	O	Servo D/A output pin. (RFVCA: Assistant signal)
33	TBAL	O	Servo D/A output pin. (TBAL: Tracking balance control signal)
34	FBAL	O	Servo D/A output pin. (FBAL: Focus balance control signal)
35	SGC	O	Servo D/A output pin. (SGC: Assistant signal)
36	SLSO	O	Servo D/A output pin. (SLSO: Thread control signal)
37	SPDO	O	Servo D/A output pin. (SPDO: Spindle control signal)
38	TDO	O	Servo D/A output pin. (TDO: Tracking control signal)
39	FDO	O	Servo D/A output pin. (FDO: Focus control signal)
40	DVSS	—	Digital GND.
41	DVDD0	—	Internal logic power supply. [Digital 3.3V]

Pin No.	Pin Name	I/O	Description
42	FG	I	FG counter input pin.
43	EVENT	I	EVENT counter input pin. (Pull down)
44	HFLIO	I/O	Mirror detest signal I/O pins.
45 ~ 48	PP0 ~ 3	I/O	General-purpose port 0 ~ 3. (Pull down)
49	WRQ	O	Subcode Q read ready monitor pin.
50	HFBUSYB	O	DSP command dispose busy signal output pin.
51	HBUSYB	O	DSP command receiver busy signal output pin.
52	DVDD3	—	I/O power supply. [Digital 5V]
53	DVSS	—	Digital GND.
54	HWAITB	O	Wait signal output pin.
55	HIRQB	O	Interrupt signal output pin.
56	DVDRESB	I	Decoder reset input pin.
57	RESB	I	System reset input pin.
58	HRDB	I	Read signal input pin.
59	HWRB	I	Write signal input pin.
60	HCSB	I	Chip select signal input pin.
61 ~ 68	HDAT0 ~ 7	I/O	Data0 ~ 7.
69 ~ 81	HADR0 ~ 12	I	Address0 ~ 12.
82	DVDD3	—	I/O power supply. [Digital 5V]
83	DVSS	—	Digital GND.
84	PW/FSEQ	O	Subcode [P, Q, R, S, T, U, V and W] data output pin.
85	SBCK	I	Subcode data readout shift clock input pin. (Connected to GND)
86	SBSY	O	Subcode block synchronization signal output pin. (No connected)
87	SFSY	O	Subcode frame synchronization signal output pin.
88	FSX	O	CD1 frame synchronization signal.
89	EFLG	O	Error correction C1, C2 correction conditions monitor pins.
90, 91	PP4, 5	I/O	General-purpose port4, 5. (Pull down)
92	X16MOUT	O	Internal 16MHz output pin. (No connected)
93	X16MIN	I	External 16MHz input pin.
94	TEST2	I	Test input pin2. (L Fixed)
95	DVDCKOUT	O	Internal DVD clock output pin.
96	DVDCKIN	I	External DVD clock input pin. (Pull down)
97	TEST3	I	Test input pin3. (L Fixed)
98	DVDD0	—	Internal logic power supply. [Digital 3.3V]
99	DVSS	—	Digital GND.
100	VPDO	—	SYSTEM PLL filter connection pin.
101	VRPFR	—	SYSTEM PLL VCO oscillator range adjustment pin.
102	VCOC	—	SYSTEM PLL filter connection pin.
103	AVSS	—	Analog GND.
104	AVDD3	—	SYSTEM VCO power supply. [Analog 3.3V]
105	DVSS	—	Digital GND.

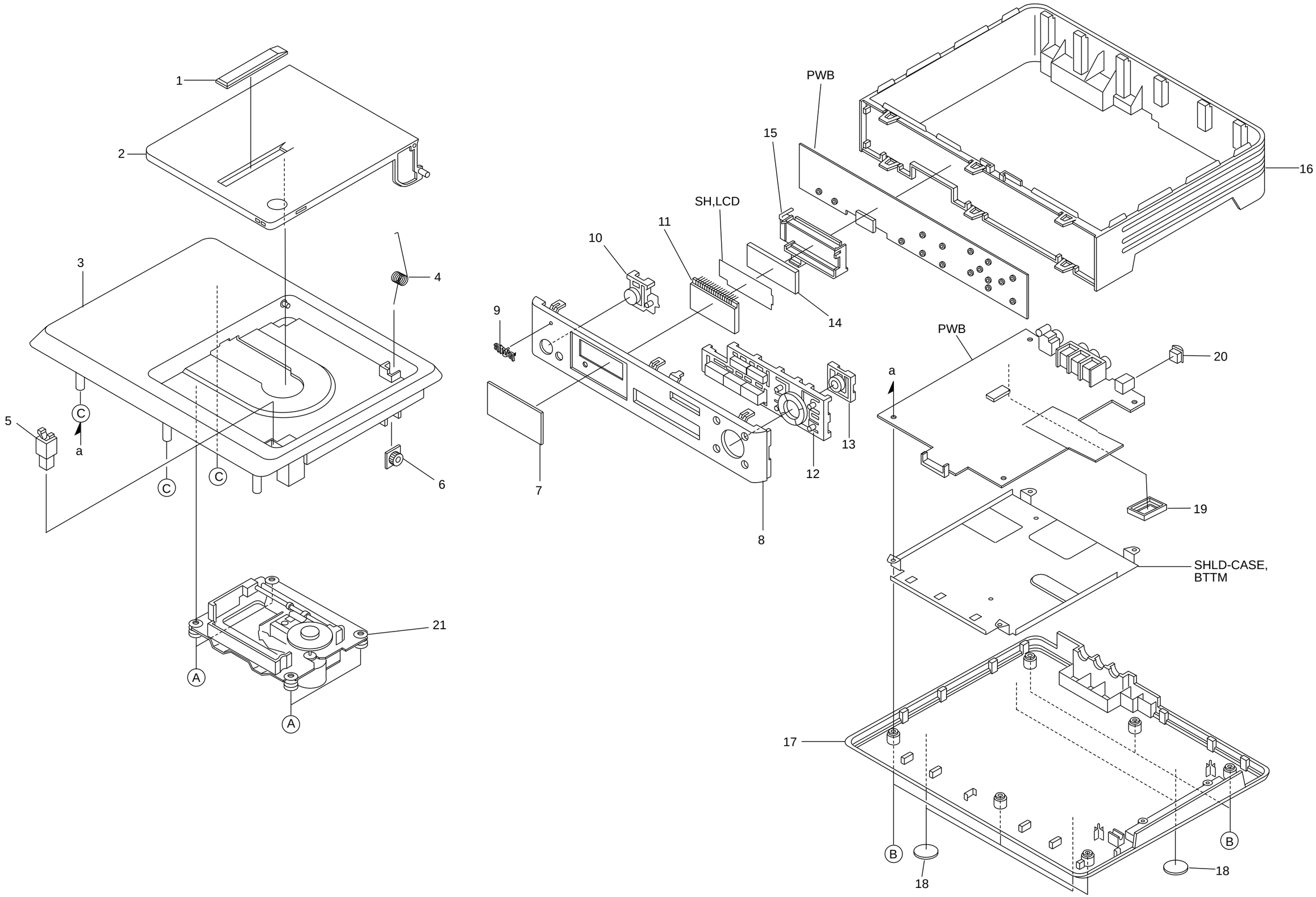
Pin No.	Pin Name	I/O	Description
106	XIN	I	Oscillator circuit input pin.
107	XOUT	O	Oscillator circuit outpit pin.
108	DVDD6	—	Oscillator circuit power supply. [Digital 3.3V]
109, 110	PP6, 7	I/O	General-purpose port6, 7. (Pull down)
111	AVREQIO	I/O	AV data demand flag I/O pins.
112	AVACKOI	I/O	AV data read strobe output pin.
113	AVDACK	O	AV data read (Clock/Enable) output pins.
114	AVSCTB	O	AV output sector synchronization output pin.
115	AVERRB	O	AV data reliable flag output pin.
116	DVSS	—	Digital GND.
117	DVDD4	—	I/O power supply. [Digital 3.3V or 5V]
118 ~ 125	AVD0 ~ 7	O	AV data0 ~ 7.
126	C2F	O	C2 flag output pin.
127	ROMXA	O	CD data output pin.
128	ROMCK	O	CD data output shift lock output pin.
129	LRSY	O	CD data output L/R clock output pin.
130	EMPH	O	Deemphasis monitor pin.
131	DOUT	O	Audio EIAJ data output pin.
132	DVDD4	—	I/O power supply. [Digital 3.3V or 5V]
133	DVSS	—	Digital GND.
134	EFMOUT	O	EFM 2 value signal output pin.
135	LEFM	O	Output pin for the signal picked out from EFM binary signal with PCK.
136	PCK	O	EFM playback shift clock output pin.
137	DVDD4	—	Inner logic power supply. [Digital 3.3V]
138	DVSS	—	Digital GND.
139	VCOCTL	—	VCO filter connection pin.
140	PPDO	—	Phase comparison filter connection pin.
141	FPDO	—	Frequency comparison filter connection pin.
142 ~ 144	LF1 ~ 3	—	Filter connection pin1 ~ 3.
145	PCN	—	Voltage monitor pin. (Phase comparison charge pomp PCH control voltage)
146	PISET	—	Current setting pin for the constant-current phase comparison charge pump.
147	FISET	—	Current setting pin for the constant-current frequency comparison charg pump.
148	CDFR	—	EFM playback VCO oscillator range setting pin. [For CD] (Pull down)
149	DVDFR	—	EFM playback VCO oscillator range setting pin. [For DVD] (Pull down)
150	AVDD2	—	EFM PLL JV power supply. [Analog 5V]
151	AVSS2	—	Analog GND.
152, 153	JVCPI, JVCPC	—	JV control pin.
154	JVAO	O	EFM playback PLL clock jitter output pin.
155	JVAIN	—	JV control pin. (Pull down)
156	JVRVO	—	JV control pin. (No connected)
157	AVDD4	—	SYSTEM PLL power supply. [Analog 3.3V]

Pin No.	Pin Name	I/O	Description
158	AVSS	—	Analog GND.
159 ~ 166	MD15 ~ 8	I/O	DRAM data15 ~ 8.
167	DVDD5	—	I/O power supply. [Digital 5V]
168	DVSS	—	Digital GND.
169 ~ 176	MD7 ~ 0	I/O	DRAM data7 ~ 0.
177 ~ 184	MA0 ~ 7	O	DRAM address0 ~ 7.
185	DVDD5	—	I/O power supply. [Digital 5V]
186	DVSS	—	Digital GND.
187	MA8	O	DRAM address8.
188 ~ 191	MA9-12	O	DRAM address9 ~ 12. (No connected)
192	MRAS0B	O	RAS output pin0.
193	MRAS1B	O	RAS output pin1. (No connected)
194	MCASUB	O	CAS output pin. (Upper Byte)
195	MCASLB	O	CAS output pin. (Lower Byte)
196	MOEB	O	OE output pin.
197	MWEB	O	WE output pin.
198	DVSS	—	Digital GND.
199	DVDD0	—	Inner logic power supply. [Digital 3.3V]
200 ~ 204	RFP0 ~ 4	O	RF general-purpose port output pin0 ~ 4.
205	DBFECTO	O	Defect signal output pin.
206	DEFECTTI	I	Defect signal input pin.
207	DVSS	—	Digital GND.
208	DVDD1	—	I/O power supply. [Digital 5V]

Pin No.	Pin Name	I/O	Description
1	RFM	I	RF signal - input. (Pull down)
2	RFP	I	RF signal + input.
3	PD1	I	Pickup signal input.
4	PD2	I	Pickup signal input.
5	PD3	I	Pickup signal input.
6	PD4	I	Pickup signal input.
7	PD5	I	Pickup signal input.
8	PD6	I	Pickup signal input.
9	PD7	I	Pickup signal input.
10	PD8	I	Pickup signal input.
11	PD9	I	Pickup signal input.
12	VCC	—	Power supply. (Servo signal system)
13	LDD1	O	APC1 output.
14	LDS1	I	APC1 monitor voltage input.
15	LDD2	O	APC2 output.
16	LDS2	I	APC2 monitor voltage input.
17	GND	—	Ground. (Servo signal system)
18	SGC	I	Servo gain control terminal. (RREC, FE, TE)
19	FBAL	I	Focus balance adjustment terminal.
20	TEBL	I	Tracking balance adjustment terminal.
21	VGA	I	RF gain adjustment terminal.
22	BST	I	Equalizer boost adjustment terminal.
23	FOST	I	Focus offset adjustment terminal.
24	TOST	I	Tracking offset adjustment terminal.
25	BCATH	I	BCA threshold adjustment terminal.
26	REFI	I	Reference voltage setting terminal.
27	2.5V OUT	O	Reference voltage output for servo signal.
28	RRBC	O	Reflection output.
29	FE	O	Focus error output.
30	TE	O	Tracking error output.
31	THC	—	External capacitor for setting TE hold time constant is connected to this terminal.
32	WO	O	Warble output terminal.
33	ISET	—	External resistor for setting BPF center frequency is connected to this terminal. (Pull down)
34	WOI	I	Push-pull signal input.
35	WOO	O	Push-pull signal output.
36	TEO	—	TE gain setting terminal for 3 beam.
37	TEN	—	TE gain setting terminal for 3 beam.
38	CP	—	External resistor and capacitor for setting charge pump gain, are connected to this terminal.
39	BHI	—	External resistor for setting bottom hold detection constant, is connected to this terminal. (Pull down)
40	RFON	O	RF - output.

Pin No.	Pin Name	I/O	Description
41	RFOP	O	RF + output.
42	BH	O	RF bottom detection output.
43	PHI	—	External resistor for setting peak hold detection constant, is connected to this terminal. (Pull down).
44	PH	O	RF peak detection output.
45	BCA	O	BCA output.
46	DEF	O	Defect output. (H: Defect detection)
47	DEFC	—	External resistor for defect detection is connected to this terminal.
48	TC	—	External resistor for setting defect detection constant is connected to this terminal.
49	GND	—	Ground. (DPD system)
50	LPC	—	External capacitor for RF DC servo is connected to this terminal.
51	CPOF	I	Charge pump OFF terminal. (H: OFF)
52	EQO2	—	RF equalizer setting terminal.
53	TH	I	Tracking hold. (H: Hold)
54	EQL2	I	RF equalizer setting terminal.
55	VCC	—	Power supply. (DPD system)
56	EQO4	O	RF equalizer setting terminal.
57	XHTR	I	Tracking bottom detection band switch. (L: High band)
58	BQL4	I	RF equalizer setting terminal.
59	XQBH	I	Bottom detection constant switch. (L: High speed)
60	EQO3	O	RF equalizer setting terminal.
61	EQSCT	I	Equalizer switcher. (H: 77-pin selection, L: 52-pin selection)
62	EQI3	I	RF equalizer setting terminal.
63	DPD/TEB	I	DPD 3-beam tracking switcher. (H: DPD)
64	RFO2	O	RF output.
65	RFO1	O	RF output.
66	VCC	—	Power supply. (RF system)
67	EQI1	I	RF equalizer setting terminal.
68	TE/PP	I	3-beam push-pull tracking switcher. (L: 3-beam)
69	EQO1	O	RF equalizer setting terminal.
70	LDON2	I	APC2 laser ON terminal. (H: ON)
71	EQI2	I	RF equalizer setting terminal.
72	LDON1	I	APC1 laser ON terminal. (H: ON)
73	EQO2	O	RF equalizer setting terminal.
74	GND	—	Ground. (RF system)
75	EQL1	I	RF equalizer setting terminal.
76	RFSCT	I	RF input switcher. (H: RF different input, PP error)
77	EQO1	O	RF equalizer setting terminal.
78	CAO	O	Customer amplifier output.
79	PREF	—	Reference voltage output. (for pick)
80	OAN	I	Customer amplifier input.

MECHANICAL EXPLODED VIEW 1/1



MECHANICAL MAIN PARTS LIST 1/1

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	8A-AV6-007-010		WINDOW,LID
2	8A-AV6-005-010		LID,DISK
3	8A-AV6-001-010		CABI,TOP
4	8A-AV6-205-010		SPR-T,LID
5	87-036-389-010		SW,PUSH LOCK
6	87-063-164-010		OIL-DMPR 80
7	8A-AV6-006-010		WINDOW,LCD
8	8A-AV6-003-010		CABI,FRONT
9	8A-AV6-008-010		BADGE,AIWA 25 SIL
10	8A-AV6-009-010		KEY,POWER
11	8A-AV6-608-010		LCD,AAV-6
12	8A-AV6-010-010		KEY,PLAY
13	8A-AV6-012-010		KEY,ENTER
14	8A-AV6-202-010		LENS,LCD
15	8A-AV6-201-010		HLDR,LCD
16	8A-AV6-002-010		CABI,CNTR
17	8A-AV6-004-010		CABI,BTTM
18	8A-AV6-208-010		FOOT, 19.5 -1.5
19	87-A91-554-010		COVER,2-44P IC179-44600
20	87-HC4-014-010		COVER, OPT
21	8A-AV6-299-010		MECHA,DVDTEMP
A	8A-ZG1-201-010		S-SCREW,MECH 880
B	87-067-581-010		TAPPING SCREW, BVT2+3-15
C	87-B10-328-010		W-P,3.2-7-0.3

COLOR NAME TABLE

Basic color symbol	Color	Basic color symbol	Color	Basic color symbol	Color
B	Black	C	Cream	D	Orange
G	Green	H	Gray	L	Blue
LT	Transparent Blue	N	Gold	P	Pink
R	Red	S	Silver	ST	Titan Silver
T	Brown	V	Violet	W	White
WT	Transparent White	Y	Yellow	YT	Transparent Yellow
LM	Metallic Blue	LL	Light Blue	GT	Transparent Green
LD	Dark Blue	DT	Transparent Orange	GM	Metallic Green
YM	Metallic Yellow	DM	Metallic Orange	PT	Transparent Pink
LA	Aqua Blue	GL	Light Green		

DISASSEMBLY INSTRUCTIONS

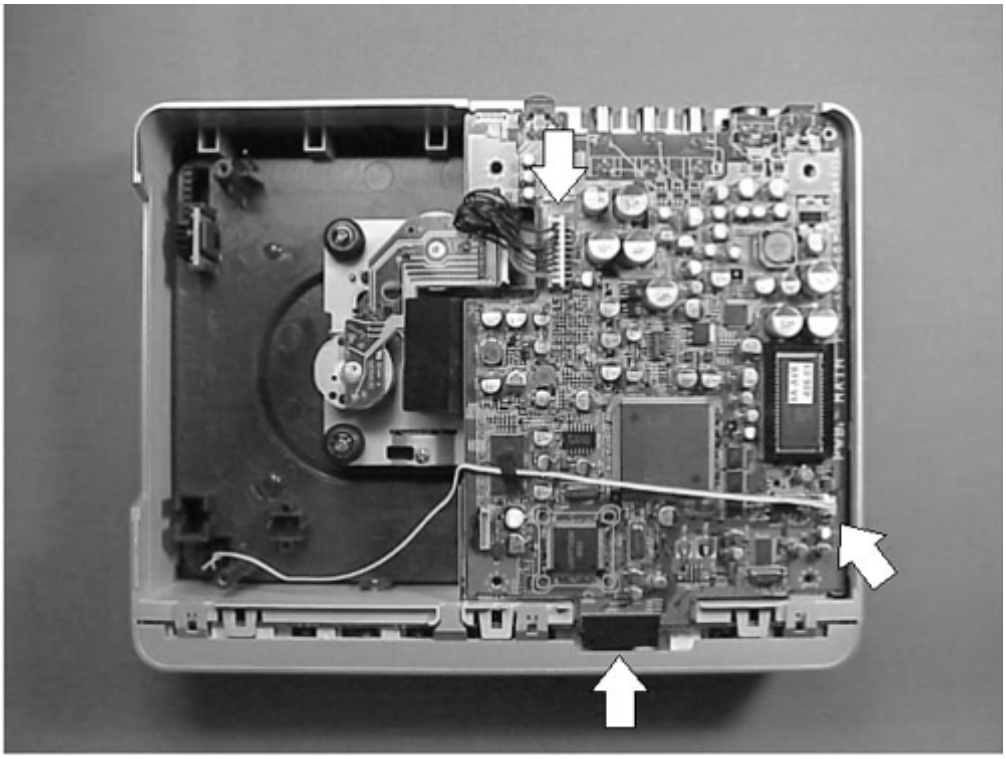
1. Disassembly method

1-1. Remove the CABI, BTTM.

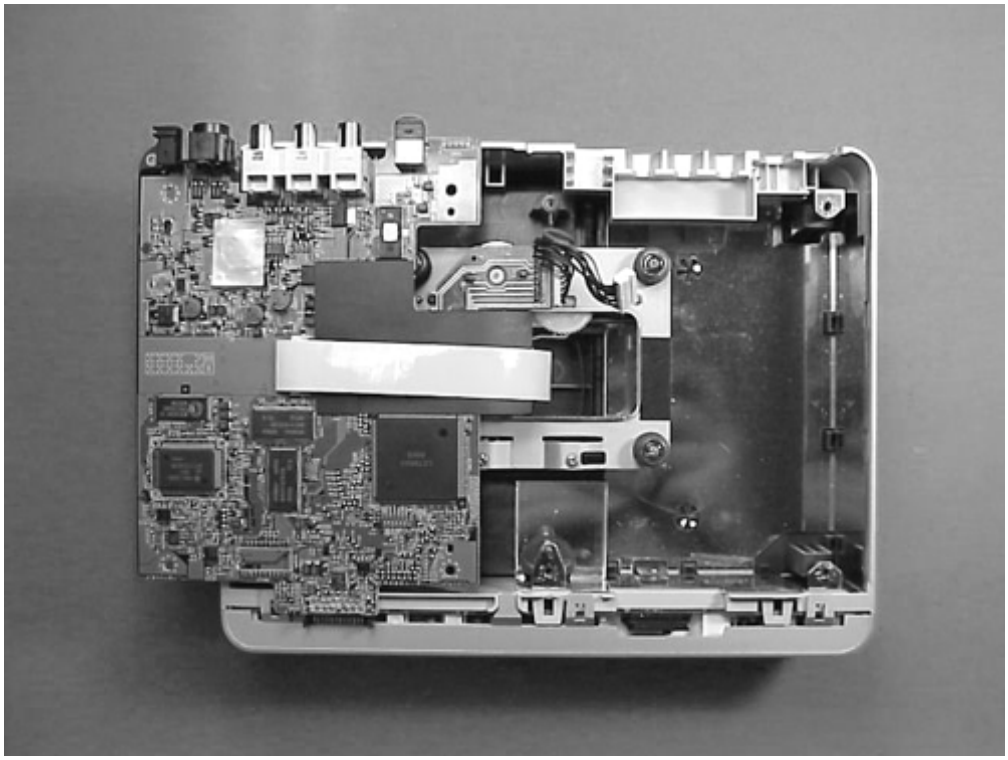
1) Remove 6 screws.

1-2. Remove the MAIN C. B.

1) Remove CN402, CN600, CN601.

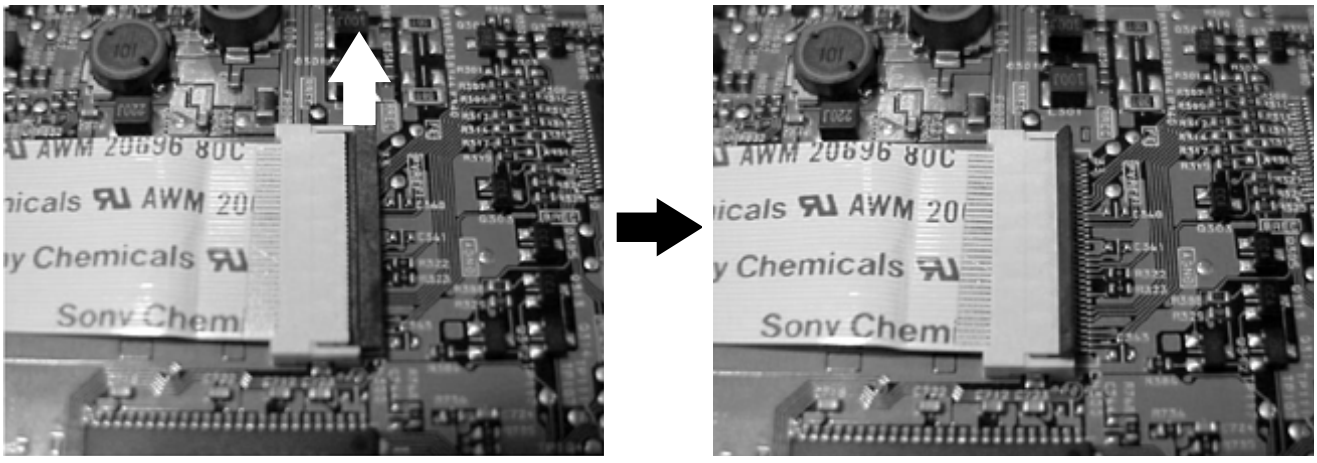


2) Turn up the MAIN C.B.

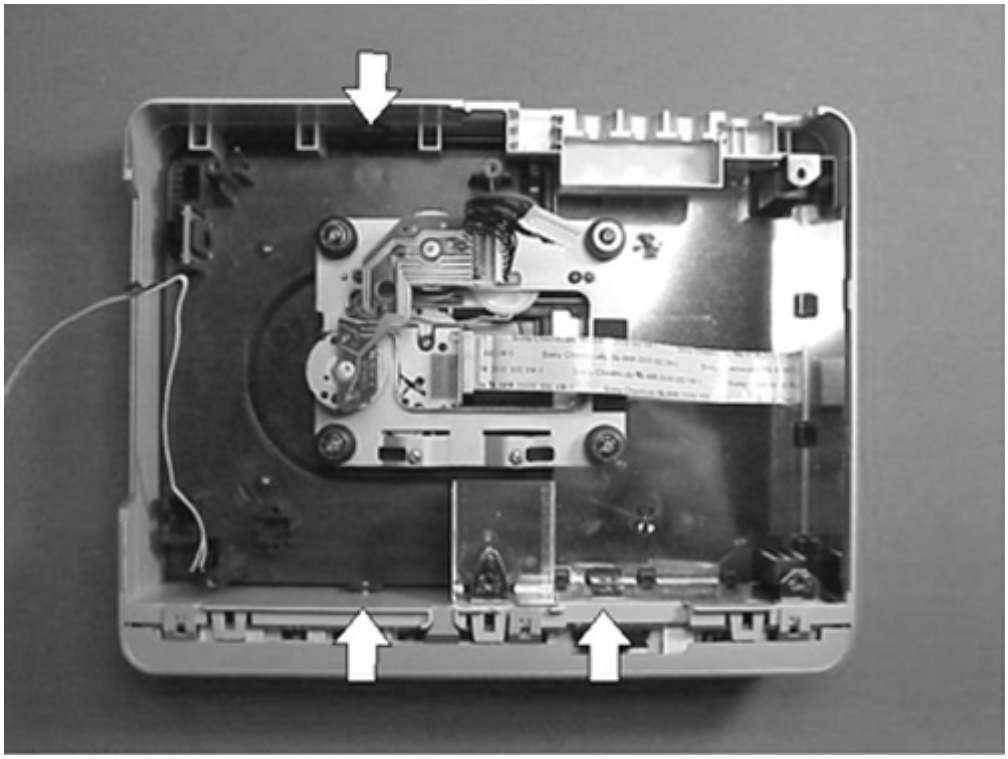


3) The lock part of CN300 is raised upward.
4) Lock is canceled.
5) Remove the MAIN C. B.

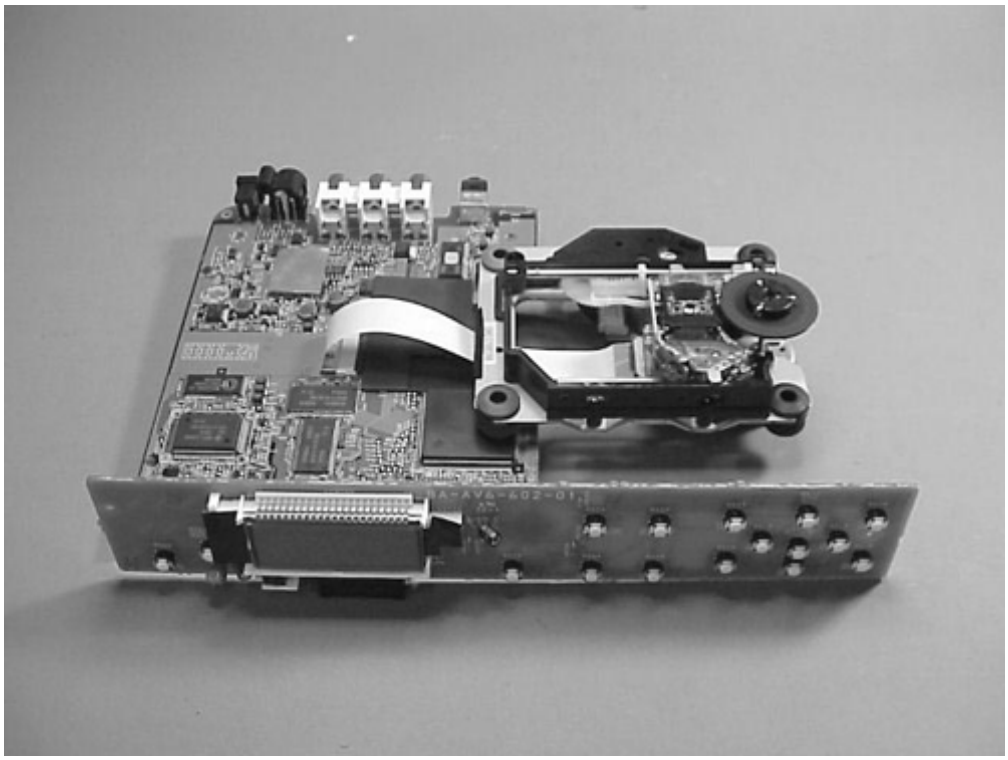
To Release the Lock.



1-3. To Remove the CABI, CNTR, unlock the nails (3 places).



1-4. Service-position of the main unit for MAIN C.B (TOP VIEW).



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